DOCUMENT RESUME

ED 459 185 TM 033 461

TITLE	Guide to Interpreting the 1999 MCAS Reports for Schools and Districts. Massachusetts Comprehensive Assessment System.
INSTITUTION	Massachusetts State Dept. of Education, Boston.
PUB DATE	1999-00-00
NOTE	59p.; For the guide to the spring 2000 reports, see ED 454 292.
AVAILABLE FROM	For full text: http://www.doe.mass.edu.
PUB TYPE	Guides - Non-Classroom (055)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Academic Achievement; *Achievement Tests; Elementary Secondary Education; School Districts; *Scores; State Programs; Test Interpretation; *Test Results; *Testing Programs
IDENTIFIERS	*Massachusetts Comprehensive Assessment System

ABSTRACT

This guide explains results and other information contained in the "Test Item Analysis Report," the "School Report," and the "District Report" for the Massachusetts Comprehensive Assessment System (MCAS) tests for spring 1999. It is designed to help teachers, administrators, and parents understand the MCAS testing program. The guide contains this section: (1) "Document Purpose"; (2) "General Guidelines for the Interpretation and Use of MCAS Reports"; (3) "Understanding the 'Test Item Analysis Report'"; and (4) "Understanding the 'School' and 'District Reports.'" Appendixes contain information on converting raw scores to scale scores, the MCAS reporting categories, content-specific performance level definitions, a list of the MCAS assessment development committee members, and MCAS-related references. (Contains 3 tables and 11 references.) (SLD)

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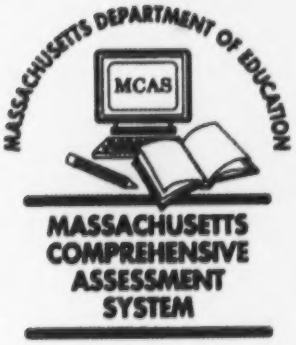

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The Massachusetts Comprehensive Assessment System

GUIDE TO INTERPRETING THE 1999 MCAS REPORTS FOR SCHOOLS AND DISTRICTS

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Massachusetts Department of Education

This document was prepared by the Massachusetts Department of Education.
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Commissioner's Foreword

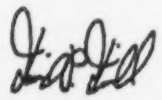
Dear Superintendents, Principals, Charter School Leaders, Directors of Collaboratives and Chapter 766 Private Schools, and Other Interested Parties:

This guide is intended to further explain results and other information contained within the *Test Item Analysis Report*, the *School Report*, and the *District Report* for the Massachusetts Comprehensive Assessment System (MCAS) tests of spring 1999. We hope that you will find it useful as you review the results for your school and/or district.

The MCAS tests are an important part of our state's effort to improve teaching and learning across the Commonwealth. It is vital that all teachers, administrators, and parents understand the MCAS testing program, as all have essential roles to play in helping students to succeed. The state is committed to working in partnership with schools and communities to improve the academic achievement of all public school students in Massachusetts.

If you have questions after reviewing this guide, the *Test Item Analysis Report*, the *School Report*, or the *District Report*, please contact MCAS Support Services at 1-800-737-5103.

Sincerely,



David P. Driscoll
Commissioner of Education

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I. Document Purpose

The primary purpose of this document is to support local educators' use of reports of results from the spring 1999 administration of the Massachusetts Comprehensive Assessment System (MCAS). This document describes and explains how to interpret information provided in the following MCAS reports:

- *MCAS Tests of Spring 1999: Test Item Analysis Report*[1]
- *MCAS Tests of Spring 1999: School Report*
- *MCAS Tests of Spring 1999: District Report*

These reports contain information that will be valuable to schools and districts in their efforts to better serve the academic needs of individual students and to evaluate and improve curriculum and instruction. In addition, this document can help school and district personnel communicate with their communities about the MCAS test results.

1 The MCAS *Test Item Analysis Report* contains confidential test results for individual students. Therefore, the *Test Item Analysis Report* is a nonpublic document subject to access restrictions dictated by state and federal law. See page 3 for additional details.

II. General Guidelines for the Interpretation and Use of MCAS Reports

ALIGNMENT OF CURRICULUM AND INSTRUCTION

Test results contained in the 1999 reports should be interpreted with caution. At the time these MCAS tests were administered, many schools were still in the process of aligning their curricula with the new state standards defined in the Massachusetts *Curriculum Frameworks*. As a result, some students may not have been exposed to all of the content covered by the MCAS tests. Also, because the tests were based on the high academic standards in the *Frameworks*, the tests were likely very challenging for many students. Over time, as students and teachers become more familiar with the new standards, test results should show student progress.

USE OF MCAS STUDENT-LEVEL RESULTS

MCAS results are intended to evaluate how well students and schools are achieving the learning standards contained in the *Curriculum Frameworks*. Individual student results and school-level results will help teachers and parents focus on areas in which students need assistance in order to improve their individual performance. It is important to note that MCAS is only one indicator of student performance and, therefore, should not be used as the sole basis for referring students to special education.

MULTIPLE DATA POINTS NEEDED FOR TREND ANALYSIS

Two years' test results provide limited information about a school's or district's overall performance. As with any evaluation, school and district test results are most meaningful when compared with other indicators and when examined over *several* years for long-term trends in student performance.

STATE REGULATIONS REGARDING CONFIDENTIALITY OF STUDENT RECORDS

The Massachusetts Student Record Regulations (603 CMR 23.00) and the Family Educational Rights and Privacy Act (FERPA) require that access to individual student results, including those provided in the *MCAS Test Item Analysis Report* and the *MCAS Student Report for Parents/Guardians*, be restricted to the student, the student's parents/guardians, and authorized school personnel. Superintendents and principals are responsible for maintaining the privacy and security of all student records. In accordance with these state and federal regulations, authorized school personnel shall have access to the student records of students to whom they are providing services, only when such access is required in the performance of their official duties.

MAKING COMPARISONS AMONG STUDENTS, SCHOOLS, AND DISTRICTS

Scaled scores are the most appropriate statistic to use when making comparisons of MCAS results among students, schools, and districts. When interpreting the meaning of these comparisons, however, it is important that decision-makers—teachers, administrators, and policy makers—recognize that some apparent differences in scaled scores may not be statistically or educationally significant, some guidelines for comparing results are explained on the next page.

Comparisons of Student-Level Scores

When comparing the scores within a subject area and grade level test of two or more students, or comparing the scores within a subject area and grade level test of a student to that of the school, district, or state, it is critical to examine the probable range of the student's scores displayed in the *Student Report for Parents/Guardians*. If there is an overlap in the probable ranges of the scores being compared, there is little statistically or educationally significant difference between the two scores. This is true even if the two scores fall on the opposite sides of a performance level threshold.

Comparisons of School- and District-Level Scores

The statistical significance of these comparisons is based on the number of students tested. Whether making comparisons within a single year or across years, the table below will assist in comparing the scores of two or more schools or districts, comparing the scores of a school to the district and/or state, or the scores of a district to the state. The table shows the smallest differences in scores that represent a statistically significant difference in performance, based on the number of students tested in the school and/or district.

It is not appropriate or possible to compare a school's or district's scaled scores across two subject areas since the scaled scores in each subject area were determined by separate standard-setting processes.

TABLE 1. NUMBER OF SCALED SCORES POINTS DENOTING MINIMALLY STATISTICALLY SIGNIFICANT DIFFERENCES FOR SCHOOL/DISTRICT RESULTS

		Number of Students Tested in School/District				
Grade	Subject	10	25	50	100	200
	English Language Arts	3	2	2	1	1
4	Mathematics	6	4	2	2	1
	Science & Technology	5	3	2	1	1
	English Language Arts	5	3	2	1	1
8	Mathematics	7	4	3	2	2
	Science & Technology	6	4	3	2	1
	History and Social Science	5	3	2	1	1
	English Language Arts	4	3	2	1	1
10	Mathematics	7	4	3	2	1
	Science & Technology	5	3	2	2	1

III. Understanding the Test Item Analysis Report

OVERVIEW

The *Test Item Analysis Report* provides results from the MCAS tests of spring 1999 for students tested in grades 4, 8, and 10. This MCAS report shows how each student tested in a school

- answered every common multiple-choice question
- performed on each common open-response and short-answer question
- performed on the English Language Arts Composition (writing prompt)

The report also summarizes overall performance at the school, district, and state levels for each of these items. Each school receives a separate *Test Item Analysis Report* for each subject area and grade tested in the school. Reports for English Language Arts differ slightly in structure from those for Mathematics, Science & Technology, and History and Social Science (see pages 13–18 of this chapter for details).

This detailed information at the student, school, and district levels can be used for

- identifying strengths and weaknesses exhibited by students
- curriculum evaluation and planning in the classroom, school, and district
- summary reporting to parents and the public (See caution regarding confidentiality of student records below).

As noted above, the *Test Item Analysis Report* shows results for MCAS common items, the basis for all student-level MCAS scores. The report is designed to be used in conjunction with the publication, *The Massachusetts Comprehensive Assessment System: Release of Spring 1999 Test Items*, which shows all the questions upon which the *Test Item Analysis Report* is based. When the report and the publication are used together, educators are provided with a detailed picture of student performance. This picture should be used in combination with other information from the classroom to develop a broad-based overview of students' academic achievement.

CAUTION: *Confidentiality of Student Records.* The Massachusetts Student Record Regulations (603 CMR 23.00) and the federal Family Educational Rights and Privacy Act (FERPA) require that access to individual student results, including those provided in the *MCAS Test Item Analysis Report*, be restricted to the student, his/her parents/guardians, and authorized school personnel. Since the *Test Item Analysis Report* provides individual student level results for all students tested in a particular school, schools must not provide parents/guardians with direct access to the school's report. To facilitate the sharing of individual student results contained in the *Test Item Analysis Report* with parents/guardians, individual student labels are provided for each student. Each student label contains all of their student-level results included on the *Test Item Analysis Report.*

Superintendents and principals are responsible for maintaining the privacy and security of all student records. In accordance with these state and federal regulations, authorized school personnel shall have access to the student records of students to whom they are providing services, only when such access is required in the performance of their official duties.

Massachusetts Comprehensive Assessment System

MCAS Tests of Spring 1999

Test Item Analysis Report

English Language Arts

School:	Fictitious School
School ID#:	001001
District:	Fictitious District
Grade: 8	**Page:** 1

See final page for the legend for codes and scores.

SCORER COMMENTS

SCORER COMMENTS in SC columns, Item 1

- DJ = details are not used effectively
- DK = details need to be developed instead of just listed
- DX = details are carefully chosen and relevant
- DY = details support the topic
- GUP = grammatical rules are applied correctly
- GUQ = writing shows control of vocabulary and word usage
- GUR = grammatical rules are not applied correctly
- GUS = words are not always used correctly
- LJ = limited variety of words used
- LK = sentence structure needs more variety
- LX = word choice makes the writing more meaningful
- LY = language used creates a distinctive voice, tone, or style
- MP = writing is clearer because mechanics are used well
- MQ = mechanics are used correctly and in complicated sentences
- MR = mechanics are not used well
- MS = student needs to proofread more carefully
- OJ = ideas need to be better organized
- OK = shifts between ideas are weak
- OX = writing shows evidence of planning
- OY = writing is consistently focused from beginning to end
- SP = sentence structure is correct
- SR = sentence structure is not correct
- TK = response needs to be more appropriate to the task's requirements
- TJ = topic needs more development
- TX = topic or idea development is effective and appropriate
- TY = topic or idea development is original

Item Number		1	1	1	1	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41			
Item Type		WP	WP	WP	WP	WP	WP	MC	MC	MC	MC	MC	MC	MC	MC	OR	MC	MC	MC	MC	MC	MC	MC	MC	OR	MC	MC	MC	MC	MC	MC	MC	OR	MC	MC	MC	MC	MC	MC	MC	MC	MC	OR	MC	MC	MC	MC			
Correct MC Answer								A	D	C	A	B	B	A	D		D	B	C	A	B	C	D	B		D	A	B	A	A	D	C	C		C	D	B	A	C	D	B	C		C	B	D	C			
Names	Reporting Category	CT	CC	SC	SC	SC	SC	LT	LT	LT	LA	LT	LT	LT	LT	LT	LA	LT	LT	LT	LT	LT	LT	LT	LT	LT	LA	LT	LA	LT	LT	LT	LT	RA	LT	LA	LT	LT	LT	LT	LT	LT	LT	LA	LT	LT	LT	Total Score	Scaled Score	Perf. Level
1. LASTNAME079, FIRSTNA		9	7	TX	DX	SR																																									16	200	F
2. LASTNAME047, FIRSTNA		11	8	TY	OK	MS																																									17	200	F
3. LASTNAME087, FIRSTNA	MS	MS						D	A	A	•	•	A	B	A	2	A	•	•	B	C	•	•	•	2	C	D	A	B	B	C	•	A	1	•	A	A	•	D	C	C	D	2	•	•	B	B	19	202	F
4. LASTNAME014, FIRSTNA	MS	MS						D	•	A	D	D	C	•	B	2	B	•	•	D	•	•	•	A	2	C	•	D	C	B	•	•	A	2	A	•	D	B	•	C	•	A	3	•	D	B	B	23	206	F
5. LASTNAME048, FIRSTNA		6	6	SP	TJ			B	C	A	C	•	•	•	B	B	A	C	B	•	C	•	A	•	B	B	•	•	B	C	A	•	•	2														24	210	F
6. LASTNAME089, FIRSTNA		8	6	SP	DK			D	B	A	C	•	•	•	C	C	2	•	C	A	C	D	B	•	C	B	C	B	•	•	D	B	B	A	B	A	•	C	B	B	•	D	A	1	A	•	A	A	28	212	F
7. LASTNAME088, FIRSTNA		8	6	OK	DJ			D	A	B	C	C	•	C	B	1	A	C	A	D		•	A	D	1	•	•	A	C	B	•		A	2	•	•	A	C	A	•	•	1	A	C	B	D	27	214	F
8. LASTNAME061, FIRSTNA		5	3	TK	SR	MR		•	B	B	•	•	A	C	A	1	A	•	A	D	D	•	•	A	1	A	•	A	B	•	•	•	A	1	•	•	A	•	B	C	•	•	1	D	D	•	B	26	216	F
9. LASTNAME087, FIRSTNA		8	6	OY	TX			B	B	•	B	A	D	C	B	2	A	D	B	•	C	B	C	•	B	A	C	A	•	C	•	B	•	1	A	C	D	•	A	C	D	B	2	•	•	A	D	28	216	F
10. LASTNAME116, FIRSTN		7	5	TK	GUR	GUS		•	B	D	C	•	C	C	B	2	•	•	D	•	•	•	•	D		•	•	•	C	D	B		A	1	D	A	A	D	B	C	C	D	1	•	D	A	D	28	216	F
11. LASTNAME131, FIRSTN		3	5	TJ	SR	TK		D	•	•	C	A	C	D	B	2	B	C	D	•	D	D	•	A	2	•	•	A	C	B	B	•	D	2	•	•	A	•	A	C	C	B	2	•	•	A	B	28	216	F
12. LASTNAME132, FIRSTN		9	4	TX	OK	MR		D	A	A	C	C	A	•	A	2	•	D	B	D	C	D	C	A	1	•	•	D	C	•	•	•	A	1	D	B	D	B	•	B	C	•	1	•	D	A	A	28	216	F
13. LASTNAME043, FIRSTN		8	6	SP	OX	DK		C	B	D	C	A	A	C	•	2	•	•	D	•	•	•	•	C	2	C	D	•	B	D	A	•	D	1	D	B	A	B	A	C	C	D	1	A	C	C	A	28	216	F
14. LASTNAME024, FIRSTN		11	7	TX	GUP	MP	DY	D	B	•	D	C	C	•	B	2	A	D	D	D	A	B	C	•	1	B	D	A	D	C	A	•	•	1	•	C	A	B	D	C	•	C	1	B	A	B	A	30	216	F
15. LASTNAME094, FIRSTN		8	6	MP	TK	DK		D		•	•	•	•	•	•	2	B	C	D	D	A	•	B	•	B	A	D	A	C	B	A	•	A	1	D	A	C	•	D		•	A	6	•	•	A	D	30	216	F
16. LASTNAME040, FIRSTN		7	6	TJ	MS	MR		C	C	B	•	D	A	•	•	1	A	D	B	C	D	•	•	D	1	•	B	•	C	B	•	•	B	1	•	•	D	C	A	A	•	B	1	•	•	A	B	31	216	F
17. LASTNAME083, FIRSTN		8	6	TJ	SR	OK		•	B	B	•	•	C	D	C	1	A	•	•	D	C	•	C	D	1	B	B	A	C	•	•	•	•	1	•	A	•	B	A	C	D	•	1	D	D	B	B	31	216	F
18. LASTNAME101, FIRSTN		6	6	SP	OY	TJ		D	B	•	B	•	D	B	A	1	A	•	D	D	C	A	C	•	B	•	B	•	•	•	•	•	•	2	•	A	•	D	A	B	D	•	2	A	C	B	A	31	216	F
19. LASTNAME001, FIRSTN		6	6	GUQ	MS	DJ		•	B	D	C	A	C	•	C	2	•	C	B	•	•	D	C	•	2	•	C	A	D	D	B	•	A	2	D	B	A	C	B	•	•	•	1	•	A	•	B	32	220	M
20. LASTNAME046, FIRSTN		8	6	OX	TX	MR	MS	D	B	A	•	•	C	D	A	1	C	A	D	B	A	•	•	•	2	A	•	•	C	•	•	A	1	•	C	•	C	A	A	•	A	1	B	D	A	D	32	220	M
21. LASTNAME071, FIRSTN		8	5	OX	TK	MS		C	•	•	•	C	•	B	•	2	A	A	D	B	D	•	C	•	2	A	C	A	B	•	•	•	A	2	B	B	A	C	D	A	C	D	3	•	D	•	B	32	220	M
22. LASTNAME108, FIRSTN		8	4	OX	LY	GUS	MR	•	•	•	•	C	•	C	A	2	•	•	A	C	•	•	B	C	2	B	D	A	•	B	•	•	B	2	D	A	C	B	A	C	D	A	2	A	•	C	•	32	220	M
23. LASTNAME125, FIRSTN								D	•	•	•	•	C	•	•	2	A	•	•	•	C	•	•	A	2	•	•	•	B	•	B	•	D	2	•	•	•	D	•	•	•	2	•	A	B	A	32	220	M

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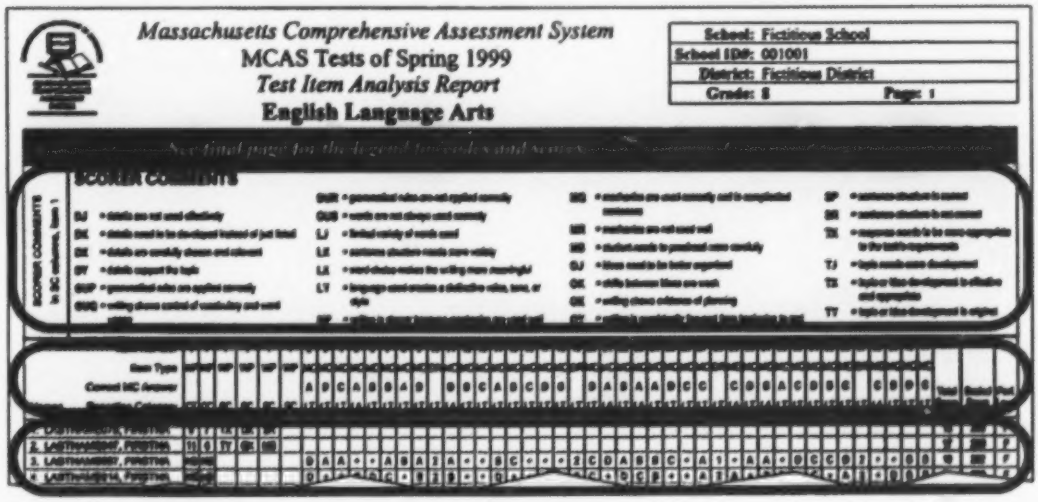
A. English Language Arts *Test Item Analysis Report*

INDIVIDUAL STUDENT RESULTS

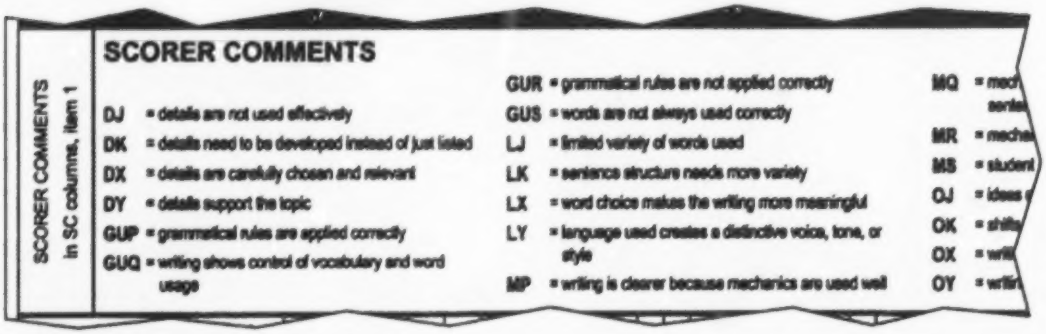
Individual student results for all common English Language Arts test items are provided in the first section of this report. The number of pages that comprise this section will depend upon the total number of students at the tested grade.



1. Scorer Comments: Codes Used to Indicate Writing Performance

In addition to receiving a score on the English Language Arts Composition test, each student's writing performance received a minimum of two, and a maximum of four, comments about strengths or areas needing improvement in the student's writing.

The box at the top of the English Language Arts *Test Item Analysis Report* labeled Scorer Comments (Section 1) lists the two- or three-letter codes used by scorers to indicate comments on a student's writing performance, e.g., "TX=topic or idea development is effective and appropriate on the English Language Arts composition test." Results according to these codes appear in the columns marked SC.


SCORER COMMENTS
in SC columns, Item 1
SCORER COMMENTS
DJ = details are not used effectively
DK = details need to be developed instead of just listed
DX = details are carefully chosen and relevant
DY = details support the topic
GUP = grammatical rules are applied correctly
GUQ = writing shows control of vocabulary and word usage
GUR = grammatical rules are not applied correctly
GUS = words are not always used correctly
LJ = limited variety of words used
LK = sentence structure needs more variety
LX = word choice makes the writing more meaningful
LY = language used creates a distinctive voice, tone, or style
MP = writing is clearer because mechanics are used well
MQ = mech
MR = mecha
MS = student
OJ = ideas
OK = shifts
OX = writi
OY = writi

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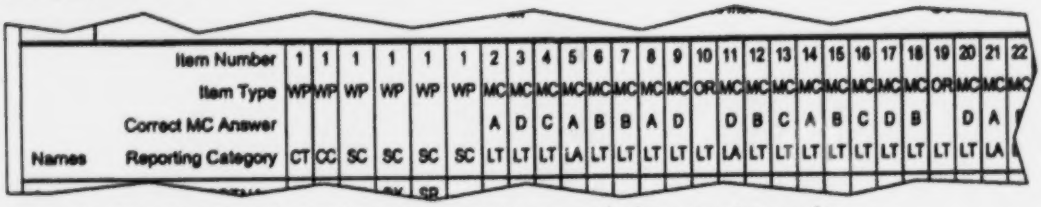
2. Item Information



	Item Number	1	1	1	1	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Item Type	WP	WP	WP	WP	WP	WP	MC	MC	MC	MC	MC	MC	MC	MC	OR	MC	MC	MC	MC	MC	MC	MC	MC	OR	MC	MC	MC
	Correct MC Answer							A	D	C	A	B	B	A	D		D	B	C	A	B	C	D	B		D	A	
Names	Reporting Category	CT	CC	SC	SC	SC	SC	LT	LT	LT	LA	LT	LT	LT	LT	LT	LA	LT	LT	LT	LT	LT	LT	LT	LT	LT	LA	

The graphic above (Section 2) shows columns that contain four types of information—item number, item type, correct multiple-choice answer, and reporting category—for each MCAS English Language Arts common item.

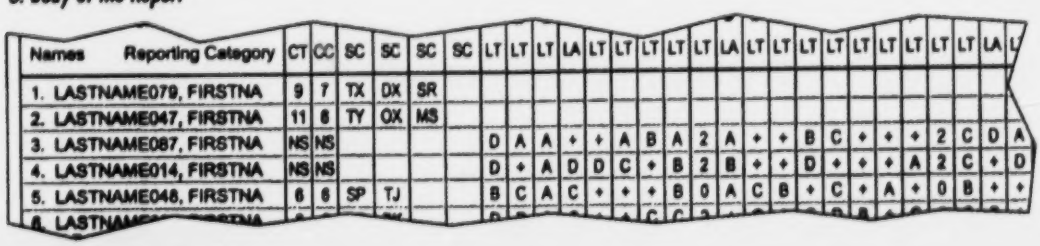
Item Number corresponds to the number of the question as it appears in the *Release of Spring 1999 Test Items* publication. Note that item number 1 on all 1999 *Test Items Analysis Reports* (grade 4, grade 8, and grade 10) is repeated across six columns. These columns show the scores and comments for the Composition: a numeric score for topic development (CT); a numeric score for writing conventions (CC); and up to four scorer comments about the student's writing performance (SC). See below (Body of the Report) for further explanation about the data in these columns and their interpretation.

Item Type indicates whether the item was a multiple-choice (MC) or open-response (OR) question, or a writing prompt (WP).

Correct MC Answer provides the letter option (A, B, C, D) for the correct answer for multiple-choice questions.

Reporting Category indicates the sub-area in English Language Arts in which each question is reported in the *School* and *District Reports*. Reporting category codes are explained in the Legend (details on this section are provided on page 12 of this document) on the final page of the *Test Item Analysis Report*. A complete list of all MCAS reporting categories is provided in Appendix B of this document. Columns containing scorer comments are indicated under the reporting category code SC.

3. Body of the Report



Names	Reporting Category	CT	CC	SC	SC	SC	SC	LT	LT	LT	LA	LT	LT	LT	LT	LT	LA	LT	LT	LT	LT	LT	LT	LT	LT	LT	LA	L
1. LASTNAME079, FIRSTNA		9	7	TX	DX	SR																						
2. LASTNAME047, FIRSTNA		11	8	TY	OX	MS																						
3. LASTNAME087, FIRSTNA		NS	NS					D	A	A	+	+	A	B	A	2	A	+	+	B	C	+	+	+	2	C	D	A
4. LASTNAME014, FIRSTNA		NS	NS					D	+	A	D	D	C	+	B	2	B	+	+	D	+	+	+	A	2	C	+	D
5. LASTNAME048, FIRSTNA		6	6	SP	TJ			B	C	A	C	+	+	+	B	0	A	C	B	+	C	+	A	+	0	B	+	+
6. LASTNA															C	C												

Individual Student Results

Section 3 lists all students in the tested grade alphabetically by last name. Individual student results are reported in alternately shaded rows across multiple columns. This section contains a row for all students enrolled in the school on the first day of testing. This number was provided by each school principal on the *Principal's Certification of Proper Test Administration* form. Enrolled students for whom no answer booklet was returned are indicated by a blank row. These students are classified as ***Absent*** and receive a minimum scaled score of 200. For students who are not included in the computation of aggregate school- and district-level results (see page 21 of this document), indi-

vidual item results are provided, but no scaled score or performance level is reported. Where the scaled score would be reported, there will be a two- or three-letter code used to identify the reason why this student was not included in the aggregate results. These codes appear in the Legend on the final page of the report. A small number of students may receive a code of "INC" signifying that there was incomplete data (e.g., the student's answer booklet and composition could not be matched, or the student responded in more than one answer booklet), and, therefore, no results could be calculated.

For multiple-choice questions,

- a + sign in any MC column indicates the student answered the question correctly;
- a letter indicates the incorrect option (A, B, C or D) that was selected;
- a blank indicates the student did not answer the question.

Open-response questions were scored on a 0 through 4 scale; the student's scores for open-response questions are shown in the OR columns.

Writing scores and scorer comments for students' compositions are indicated by numbers or codes in the six writing prompt (WP) columns (item 1). Each student's composition was scored independently by two trained scorers. Each scorer gave the composition two separate scores:

- a score from 1-6 in topic development (CT), e.g., writing development, organization, use of detail, variety in sentence structure and language; and
- a score from 1–4 for the student's use of standard English writing conventions (CC), e.g., grammar, punctuation, mechanics of writing.

The student's score as shown in each of these two columns (CT and CC) represents the total of the points awarded in each area by both scorers. Any student who wrote a totally illegible composition, wrote an off-topic response, or who wrote in a language other than English was given a notation of NS (not scoreable), which is shown as NS in this report. Zero points were awarded in such cases.

The first scorer was required to note two comments about the student's writing: one in the area of topic development and one in the area of conventions. The second scorer could choose one of the following options in commenting about the student's writing:

- note two strengths, one in each scoring area; or
- note a strength in one scoring area and an area needing improvement in the other scoring area; or
- note one area needing improvement in either scoring area.

These scorer comment codes are shown in the SC columns and defined on page 7 of this document.

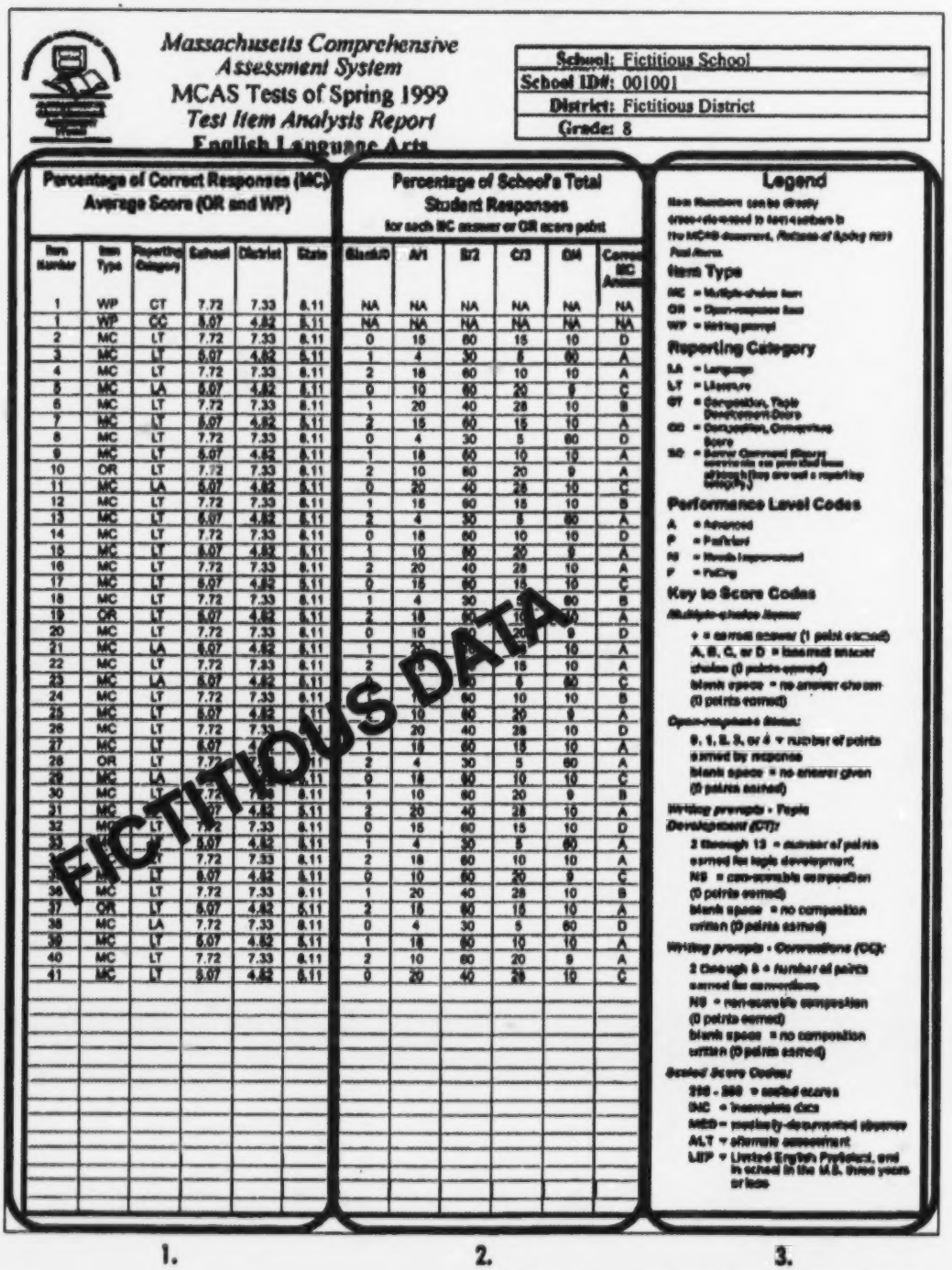
Summary Scores

The final three columns of each row contain summary information about the student's performance. The student's Total Score is shown in the column following the final item, reported in terms of "raw" score points attained in English Language Arts. The student's Total Score was calculated by adding one point for each correct multiple-choice (MC) question to the student's scores for each open-response (OR) question and the Composition (CT and CC).

The student's scaled score is shown in the next column to the right, reported on a scale ranging from 200 to 280. This scaled score translates to one of the four MCAS performance levels, which is indicated in the final column.

RESULTS AGGREGATED AT THE SCHOOL, DISTRICT, AND STATE LEVELS

The final page of the English Language Arts *Test Item Analysis Report* (sample below) shows the performance of students on common test items aggregated at school, district, and state levels.



Massachusetts Comprehensive Assessment System
MCAS Tests of Spring 1999
Test Item Analysis Report
English Language Arts

School: Fictitious School
School ID#: 001001
District: Fictitious District
Grade: 8

Percentage of Correct Responses (MC) Average Score (OR and WP)

Item Number	Item Type	Reporting Category	School	District	State
1	WP	CT	7.72	7.33	8.11
1	WP	CC	5.07	4.82	5.11
2	MC	LT	7.72	7.33	8.11
3	MC	LT	5.07	4.82	5.11
4	MC	LT	7.72	7.33	8.11
5	MC	LA	5.07	4.82	5.11
6	MC	LT	7.72	7.33	8.11
7	MC	LT	5.07	4.82	5.11
8	MC	LT	7.72	7.33	8.11
9	MC	LT	5.07	4.82	5.11
10	OR	LT	7.72	7.33	8.11
11	MC	LA	5.07	4.82	5.11
12	MC	LT	7.72	7.33	8.11
13	MC	LT	5.07	4.82	5.11
14	MC	LT	7.72	7.33	8.11
15	MC	LT	5.07	4.82	5.11
16	MC	LT	7.72	7.33	8.11
17	MC	LT	5.07	4.82	5.11
18	MC	LT	7.72	7.33	8.11
19	OR	LT	5.07	4.82	5.11
20	MC	LT	7.72	7.33	8.11
21	MC	LA	5.07	4.82	5.11
22	MC	LT	7.72	7.33	8.11
23	MC	LA	5.07	4.82	5.11
24	MC	LT	7.72	7.33	8.11
25	MC	LT	5.07	4.82	5.11
26	MC	LT	7.72	7.33	8.11
27	MC	LT	5.07	4.82	5.11
28	OR	LT	7.72	7.33	8.11
29	MC	LA	5.07	4.82	5.11
30	MC	LT	7.72	7.33	8.11
31	MC	LT	5.07	4.82	5.11
32	MC	LT	7.72	7.33	8.11
33	MC	LT	5.07	4.82	5.11
34	MC	LT	7.72	7.33	8.11
35	MC	LT	5.07	4.82	5.11
36	MC	LT	7.72	7.33	8.11
37	OR	LT	5.07	4.82	5.11
38	MC	LA	7.72	7.33	8.11
39	MC	LT	5.07	4.82	5.11
40	MC	LT	7.72	7.33	8.11
41	MC	LT	5.07	4.82	5.11

Percentage of School's Total Student Responses
for each MC answer or OR score point

Blank/O	A/1	B/2	C/3	D/4	Correct MC Answer
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
0	15	60	15	10	D
1	4	30	5	60	A
2	15	60	10	10	A
0	10	60	20	9	C
1	20	40	28	10	B
2	15	60	15	10	A
0	4	30	5	60	D
1	15	60	10	15	A
2	10	60	20	9	A
0	20	40	28	10	C
1	15	60	15	10	B
2	4	30	5	60	A
0	15	60	10	15	D
1	10	60	20	9	A
2	20	40	28	10	A
0	15	60	15	10	C
1	4	30	5	60	B
2	15	60	10	10	A
0	10	60	20	9	D
1	20	40	28	10	A
2	15	60	15	10	A
0	4	30	5	60	C
1	15	60	10	10	B
2	10	60	20	9	A
0	20	40	28	10	D
1	15	60	15	10	A
2	4	30	5	60	A
0	15	60	10	10	C
1	10	60	20	9	B
2	20	40	28	10	A
0	15	60	15	10	D
1	4	30	5	60	A
2	15	60	10	10	A
0	10	60	20	9	C
1	20	40	28	10	B
2	15	60	15	10	A
0	4	30	5	60	D
1	15	60	10	10	A
2	10	60	20	9	A
0	20	40	28	10	C

Legend

Item Numbers can be directly cross-referenced to item numbers in the MCAS document, *Release of Spring 1999 Test Items*.

Item Type
MC = Multiple-choice item
OR = Open-response item
WP = Writing prompt

Reporting Category
LA = Language
LT = Literature
CT = Composition, Topic Development Score
CC = Composition, Conventions Score
SC = Science Comment (Short answer items are provided because although they are not a reporting category.)

Performance Level Codes
A = Advanced
P = Proficient
NI = Needs Improvement
F = Failing

Key to Score Codes

Multiple-choice items:
+ = correct answer (1 point earned)
A, B, C, or D = incorrect answer choice (0 points earned)
blank space = no answer given (0 points earned)

Open-response items:
0, 1, 2, 3, or 4 = number of points earned by response
blank space = no answer given (0 points earned)

Writing prompts - Topic Development (CT):
2 through 12 = number of points earned for topic development
NS = non-scorable composition (0 points earned)
blank space = no composition written (0 points earned)

Writing prompts - Conventions (CC):
2 through 8 = number of points earned for conventions
NS = non-scorable composition (0 points earned)
blank space = no composition written (0 points earned)

Scaled Score Codes:
200 - 280 = scaled scores
INC = incomplete data
MED = medically-documented absence
ALT = alternate assessment
LEP = Limited English Proficient, and in school in the U.S. three years or less

FICTITIOUS DATA

1. 2. 3.

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1. Percentage of Correct Responses (MC)/Average Score (OR and WP)

Percentage of Correct Responses (MC)/ Average Score (OR and WP)

Item Number	Item Type	Reporting Category	School	District	State
1	WP	CT	7.72	7.33	8.11
1	WP	CC	5.07	4.82	5.11
2	MC	LT	7.72	7.33	8.11
3	MC	LT	5.07	4.82	5.11
4	MC	LT	7.72	7.33	8.11

This section shows aggregated data for the school, district, and state. Items are listed by item number, type, and reporting category, as explained earlier in this chapter. The table shows, for the school, district, and state, the percentage of correct responses for each multiple-choice question and the average score for each open-response question and writing prompt. These statistics will help educators compare the performance of students in the school to students in the district and across Massachusetts, and identify strengths and weaknesses in local curriculum and instruction.

2. Percentage of School's Total Student Responses

Percentage of School's Total Student Responses
for each MC answer or OR score point

Item	Blank/0	A/1	B/2	C/3	D/4	Correct MC Answer
1	NA	NA	NA	NA	NA	NA
1	NA	NA	NA	NA	NA	NA
2	0	15	60	15	10	D
3	1	4	30	5	60	A
4	2	4	60	24	10	A

This section shows two kinds of aggregated data:

- For each multiple-choice question, this section shows the percentage of students in the school who chose each answer option (blank, A, B, C, or D); the correct answer is provided in the far right column. This information will be most useful to educators in analyzing students' mistakes and possible misconceptions held by students in the school.
- For open-response questions, the section shows the percentage of students in the school at each score point (blank/0, 1, 2, 3, or 4).

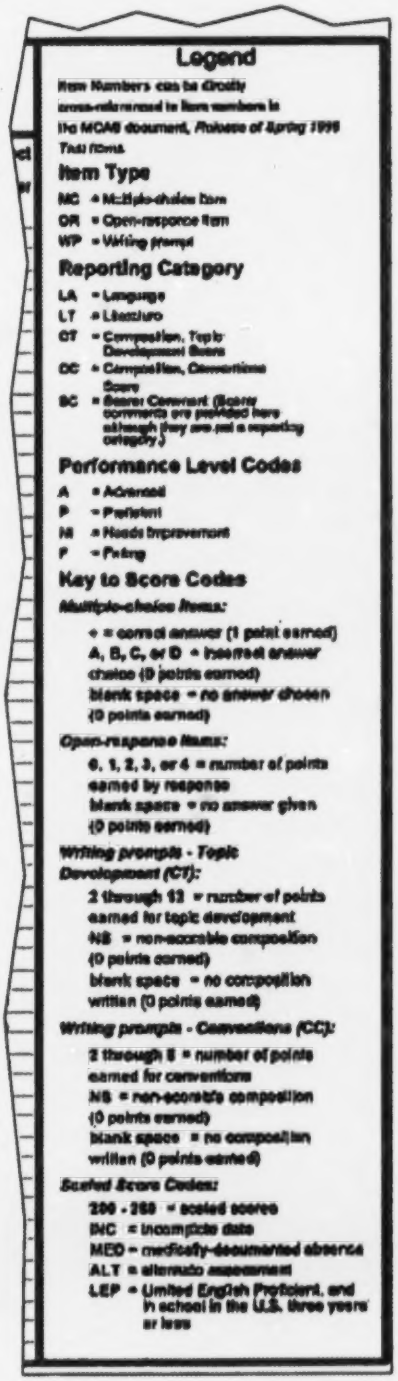
3. Legend

This section is provided as a quick reference for anyone reviewing the report: it explains and gives additional information on how to interpret codes that appear throughout the report pages.

The information on Item Numbers and Item Type applies to both the first section of the report and this final page.

Reporting Category information given here refers to the two- and three-letter codes that appear in columns (above the horizontal line) within the first section of the report. A complete list of MCAS reporting categories is provided in Appendix B of this document.

The information given in the Key to Score Codes section explains the symbols, letters, and numbers (also in the first section of the report) which appear in the columns across from each student's name.



Legend

Item Numbers can be directly cross-referenced to item numbers in the MCAS document, *Release of Spring 1999 Test Items*.

Item Type

MC = Multiple-choice item
OR = Open-response item
WP = Writing prompt

Reporting Category

LA = Language
LT = Literature
CT = Composition, Topic Development Score
CC = Composition, Conventions Score
SC = Scorer Comment (Scorer comments are provided here although they are not a reporting category.)

Performance Level Codes

A = Advanced
P = Proficient
NI = Needs Improvement
F = Failing

Key to Score Codes

Multiple-choice items:

+ = correct answer (1 point earned)
A, B, C, or D = incorrect answer choice (0 points earned)
blank space = no answer chosen (0 points earned)

Open-response items:

0, 1, 2, 3, or 4 = number of points earned by response
blank space = no answer given (0 points earned)

Writing prompts - Topic Development (CT):

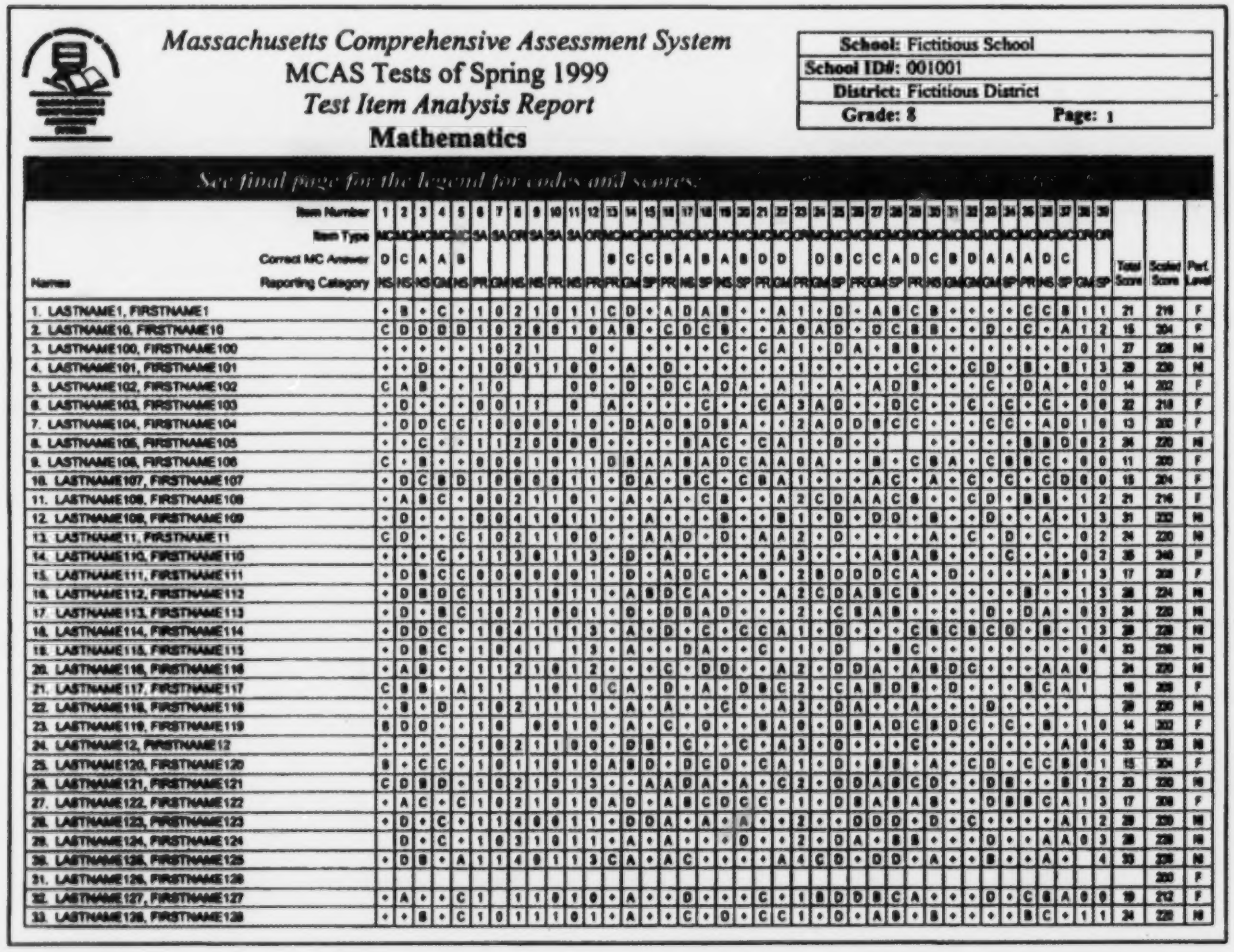
2 through 12 = number of points earned for topic development
NS = non-scorable composition (0 points earned)
blank space = no composition written (0 points earned)

Writing prompts - Conventions (CC):

2 through 8 = number of points earned for conventions
NS = non-scorable composition (0 points earned)
blank space = no composition written (0 points earned)

Scaled Score Codes:

200 - 280 = scaled scores
INC = incomplete data
MED = medically-documented absence
ALT = alternate assessment
LEP = Limited English Proficient, and in school in the U.S. three years or less



Massachusetts Comprehensive Assessment System
MCAS Tests of Spring 1999
Test Item Analysis Report
Mathematics

School: Fictitious School
School ID#: 001001
District: Fictitious District
Grade: 8 **Page:** 1

See final page for the legend for codes and scores.

Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39			
Item Type	MC	MC	MC	MC	MC	SA	SA	OR	SA	SA	SA	OR	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	OR	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	OR	OR			
Correct MC Answer	D	C	A	B									B	C	C	B	A	B	A	B	D	D	D		D	B	C	C	A	D	C	B	D	A	A	A	D	C					
Names / Reporting Category	KS	KS	KS	GM	KS	PR	GM	KS	KS	PR	KS	PR	PR	GM	SP	PR	KS	SP	KS	SP	PR	GM	PR	GM	SP	PR	GM	SP	PR	KS	GM	GM	GM	SP	PR	KS	SP	GM	SP	Total Score	Scaled Score	Perf. Level
1. LASTNAME1, FIRSTNAME1	•	B	•	C	•	1	0	2	1	0	1	1	C	D	•	A	D	A	B	•	•	A	1	•	D	•	A	B	C	B	•	•	•	•	C	C	B	1	1	21	216	F
2. LASTNAME10, FIRSTNAME10	C	D	D	D	D	1	0	2	0	0	1	0	A	B	•	C	D	C	B	•	•	A	0	A	D	•	D	C	B	B	•	•	D	•	C	•	A	1	2	15	204	F
3. LASTNAME100, FIRSTNAME100	•	•	•	•	•	1	0	2	1			0	•		•	•	•	C	•	C	•	A	1	•	D	A	•	B	B	•	•	•	•	•	•	•	0	1	27	226	M
4. LASTNAME101, FIRSTNAME101	•	•	D	•	•	1	0	0	1	1	0	0	•	A	•	D	•	•	•	•	•	•	1	•	•	•	•	C	•	•	C	D	•	B	•	B	1	3	29	230	M
5. LASTNAME102, FIRSTNAME102	C	A	B	•	•	1	0				0	0	•	D	•	D	C	A	D	A	•	A	1	•	A	•	A	D	B	•	•	C	•	D	A	•	0	0	14	202	F
6. LASTNAME103, FIRSTNAME103	•	D	•	•	•	0	0	1	1		0		A	•	•	•	•	C	•	•	C	A	3	A	D	•	•	D	C	•	•	C	•	C	•	C	•	0	0	22	219	F
7. LASTNAME104, FIRSTNAME104	•	D	D	C	C	1	0	0	0	0	1	0	•	D	A	D	B	D	B	A	•	•	2	A	D	D	B	C	C	•	•	•	C	C	•	A	D	1	0	13	202	F
8. LASTNAME105, FIRSTNAME105	•	•	C	•	•	1	1	2	0	0	0	0	•	•	•	•	B	A	C	•	C	A	1	•	D	•	•			•	•	•	•	B	B	D	0	2	26	220	M
9. LASTNAME106, FIRSTNAME106	C	•	B	•	•	0	0	0	1	0	1	1	D	B	A	A	B	A	D	C	A	A	0	A	•	•	B	•	C	B	A	•	C	B	B	C	•	0	0	11	200	F
10. LASTNAME107, FIRSTNAME107	•	D	C	B	D	1	0	0	0	0	1	1	•	D	A	•	B	C	•	C	B	A	1	•	•	•	A	C	•	A	•	C	•	C	•	C	D	0	0	15	204	F
11. LASTNAME108, FIRSTNAME108	•	A	B	C	•	0	0	2	1	1	0	1	•	A	•	A	•	C	B	•	•	A	2	C	D	A	A	C	B	•	•	C	D	•	B	B	•	1	2	21	216	F
12. LASTNAME109, FIRSTNAME109	•	D	•	•	•	0	0	4	1	0	1	1	•	•	A	•	•	•	B	•	•	B	1	•	D	•	D	D	•	B	•	•	D	•	•	A	•	1	3	31	232	M
13. LASTNAME11, FIRSTNAME11	C	D	•	•	C	1	0	2	1	1	0	0	•	•	A	A	D	•	D	•	A	A	2	•	D	•	•	•	•	A	•	C	•	D	•	C	•	0	2	24	220	M
14. LASTNAME110, FIRSTNAME110	•	•	•	C	•	1	1	3	0	1	1	3	•	D	•	A	•	•	•	•	•	A	3	•	•	•	A	B	A	B	•	•	•	C	•	•	•	0	2	35	248	P
15. LASTNAME111, FIRSTNAME111	•	D	B	C	C	0	0	0	0	0	0	1	•	D	•	A	D	C	•	A	B	•	2	B	D	D	D	C	A	•	D	•	•	•	•	A	B	1	3	17	208	F
16. LASTNAME112, FIRSTNAME112	•	D	B	D	C	1	1	3	1	0	1	1	•	A	B	D	C	A	•	•	•	A	2	C	D	A	B	C	B	•	•	•	•	•	B	•	•	1	3	28	224	M
17. LASTNAME113, FIRSTNAME113	•	D	•	B	C	1	0	2	1	0	0	1	•	D	•	D	B	A	D	•	•	•	2	•	C	B	A	B	•	•	•	•	D	•	D	A	•	0	3	24	220	M
18. LASTNAME114, FIRSTNAME114	•	D	D	C	•	1	0	4	1	1	1	3	•	A	•	D	•	C	•	C	C	A	1	•	D	•	•	•	C	B	C	B	C	D	•	B	•	1	3	29	228	M
19. LASTNAME115, FIRSTNAME115	•	D	B	C	•	1	0	4	1		1	3	•	A	•	•	D	A	•	•	C	•	1	•	D		•	B	C	•	•	•	•	•	•	•	0	4	23	206	M
20. LASTNAME116, FIRSTNAME116	•	A	B	•	•	1	1	2	1	0	1	2	•	•	•	C	•	D	D	•	•	A	2	•	D	D	A	•	A	B	D	C	•	•	A	A	0			24	220	M
21. LASTNAME117, FIRSTNAME117	C	B	B	•	A	1	1			1	0	1	0	C	A	•	D	•	A	•	D	B	C	2	•	C	A	B	D	B	•	D	•	•	B	C	A	1			16	200	F
22. LASTNAME118, FIRSTNAME118	•	B	•	D	•	1	0	2	1	1	1	1	•	A	•	•	A	•	C	•	•	A	2	•	D	A	•	•	A	•	•	•	0	•	•	•				29	230	M
23. LASTNAME119, FIRSTNAME119	B	D	D	•	•	1	0		0	0	1	0	•	A	•	C	•	D	•	•	B	A	0	•	D	B	A	D	C	B	D	C	•	C	•	B	•	1	0	14	202	F
24. LASTNAME12, FIRSTNAME12	•	•	•	•	•	1	0	2	1	1	0	0	•	D	B	•	C	•	•	C	•	A	3	•	D	•	•	•	C	•	•	•	•	•	•	A	0	4	33	236	M
25. LASTNAME120, FIRSTNAME120	B	•	C	C	•	1	0	1	1	0	1	0	A	B	D	•	D	C	D	•	C	A	1	•	D	•	B	B	•	A	•	C	D	•	C	C	B	0	1	15	204	F
26. LASTNAME121, FIRSTNAME121	C	D	B	D	•	1	0	2	1	0	1	3	•	•	A	A	D	A	•	A	•	C	2	•	D	D	A	B	C	D	•	•	D	B	•	•	B	1	2	20	220	M
27. LASTNAME122, FIRSTNAME122	•	A	C	•	C	1	0	2	1	0	1	0	A	D	•	A	B	C	D	C	C	•	1	•	D	B	A	B	A	B	•	•	D	B	B	C	A	1	3	17	208	F
28. LASTNAME123, FIRSTNAME123	•	D	•	C	•	1	1	4	0	0	1	1	•	D	D	A	•	A	•	A	•	•	2	•	•	D	D	D	•	D	•	C	•	•	•	•	A	1	2	29	230	M
29. LASTNAME124, FIRSTNAME124		D	•	C	•	1	0	3	1	0	1	1	•	A	•	A	•	•	•	D	•	•	2	•	D	A	•	B	B	•	•	•	D	•	•	A	A	0	3	28	228	M
30. LASTNAME125, FIRSTNAME125	•	D	B	•	A	1	1	4	0	1	1	3	C	A	•	A	C	•	•	•	A	4	C	D	•	D	D	•	A	•	•	B	•	•	A	•		4	33	236	M
31. LASTNAME126, FIRSTNAME126																																								200	F
32. LASTNAME127, FIRSTNAME127	•	A	•	•	C	1		1	1	0	1	0	•	A	•	•	D	•	•	•	C	•	1	B	D	D	B	C	A	•	•	•	D	•	C	B	A	0	0	19	212	F
33. LASTNAME128, FIRSTNAME128	•	•	B	•	C	1	0	1	1	1	0	1	•	A	•	•	C	•	D	•	C	C	1	•	D	•	A	B	•	B	•	•	•	•	B	C	•	1	1	24	220	M

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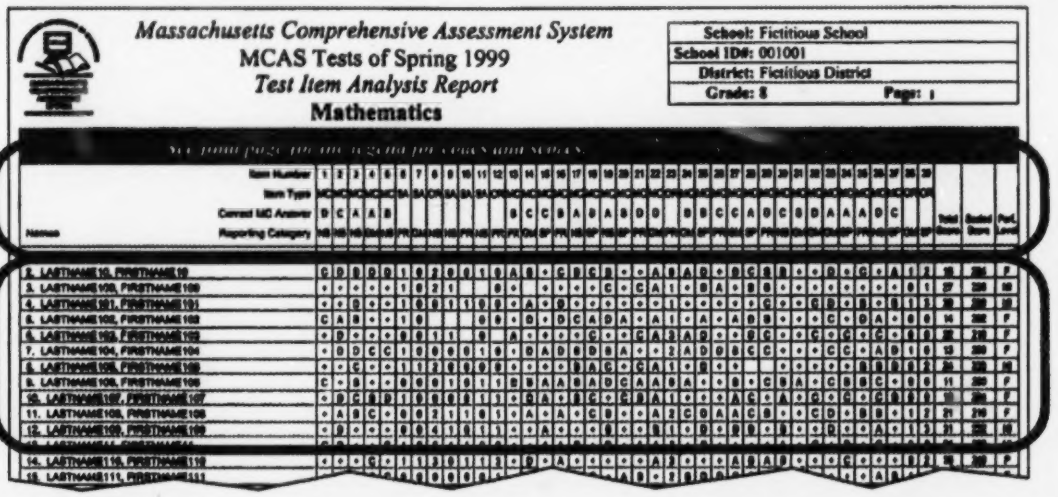
B. Mathematics, Science & Technology, and History and Social Science *Test Item Analysis Reports*

The formats of the Mathematics, Science & Technology, and History and Social Science *Test Item Analysis Report* are identical. The following guidelines for interpretation of the report sections apply to all three of these reports.

INDIVIDUAL STUDENT RESULTS

Individual student results for all common Mathematics, Science & Technology, and History and Social Science test items are provided in the first section of the *Test Item Analysis Report*.[2] The number of pages included in this section will depend upon the total number of students at the tested grade.



Massachusetts Comprehensive Assessment System
MCAS Tests of Spring 1999
Test Item Analysis Report
Mathematics

School: Fictitious School
School ID#: 001001
District: Fictitious District
Grade: 8 Page: 1

1.

Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Item Type	MC	MC	MC	MC	MC	SA	SA	OR	SA	SA	SA	OR	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	OR	MC	MC	MC	MC	MC	MC	MC	MC	MC
Correct MC Answer	D	C	A	A	B								B	C	C	B	A	B	A	B	D	D		D	B	C	C	A	D	C	B	D
Reporting Category	NS	NS	NS	GM	NS	PR	GM	NS	NS	PR	NS	PR	PR	GM	SP	PR	NS	SP	NS	SP	PR	GM	PR	GM	SP	PR	GM	SP	PR	NS	GM	GM

2.

Name																																
2. LASTNAME10, FIRSTNAME10	G	D	B	D	D	1	0	2	0	0	1	0	A	B	•	C	B	C	B	•	•	A	B	A	D	•	B	C	B	•	•	D	•	G	•	A	1	1	18	286	F
3. LASTNAME100, FIRSTNAME100	•	•	•	•	•	•	1	0	2	1			B	•		•	•	•	•	C	•	C	A	1	•	B	A	•	B	B	•	•	•	•	•	•	•	•	B	1	27	339	M
4. LASTNAME101, FIRSTNAME101	•	•	B	•	•	1	0	B	1	1	0	B	•	A	•	B	•	•	•	•	•	•	1	•	•	•	•	•	G	B	•	B	•	B	1	1	1	30	339	M
5. LASTNAME102, FIRSTNAME102	C	A	B	•	•	1	0				0	B	•	B	•	D	C	A	D	A	•	A	1	•	A	•	A	B	B	•	•	•	C	•	D	A	•	B	0	16	286	F
6. LASTNAME103, FIRSTNAME103	•	D	•	•	•	0	B	1	1		B		A	•	•	•	•	C	•	•	C	A	3	A	B	•	•	B	C	•	•	C	•	C	•	C	•	C	B	1	25	318	F
7. LASTNAME104, FIRSTNAME104	•	D	D	C	C	1	0	0	0	1	0	•	B	A	D	B	D	B	A	•	•	2	A	D	B	B	C	C	•	•	•	C	C	•	A	D	1	0	13	286	F
8. LASTNAME105, FIRSTNAME105	•	•	C	•	•	1	1	2	0	0	0	B	•	•	•	•	B	A	C	•	C	A	1	•	B	•	•			•	•	•	•	•	B	1	B	1	2	25	318	M
9. LASTNAME106, FIRSTNAME106	C	•	B	•	•	0	0	0	1	0	1	1	B	B	A	A	B	A	D	C	A	A	B	A	•	•	B	•	C	B	B	C	•	B	C	•	B	0	11	286	F
10. LASTNAME107, FIRSTNAME107	•	D	C	B	D	1	0	B	0	B	1	1	•	D	A	•	B	C	•	C	B	A	1	•	•	•	A	C	•	A	•	G	•	G	•	C	B	B	1	18	286	F
11. LASTNAME108, FIRSTNAME108	•	A	B	C	•	0	B	2	1	1	B	1	•	A	•	A	•	C	B	•	•	A	2	C	B	A	A	C	B	•	•	C	D	•	B	B	•	1	1	21	318	F
12. LASTNAME109, FIRSTNAME109	•	D	•	•	•	0	B	4	1	B	1	1	•	•	A	•	•	•	B	•	C	B	1	•	D	•	B	D	•	B	•	D	•	•	D	•	A	•	1	1	21	318	M
14. LASTNAME110, FIRSTNAME110	•	•	•	C	•	1	1	2	0	1	1	1	2	•	D	•	A	•	•	•	•	•	•	A	2	•	•	•	A	B	A	B	•	•	•	C	•	•	•	1	1	18	286	F
15. LASTNAME111, FIRSTNAME111																																

1. Item Information

Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Item Type	MC	MC	MC	MC	MC	SA	SA	OR	SA	SA	SA	OR	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	OR	MC	MC	MC	MC	MC	MC	MC	MC	MC
Correct MC Answer	D	C	A	A	B								B	C	C	B	A	B	A	B	D	D		D	B	C	C	A	D	C	B	D
Reporting Category	NS	NS	NS	GM	NS	PR	GM	NS	NS	PR	NS	PR	PR	GM	SP	PR	NS	SP	NS	SP	PR	GM	PR	GM	SP	PR	GM	SP	PR	NS	GM	GM

Individual student results are reported in alternately shaded rows across multiple columns. Above, Each column also contains four types of information—item number, item type, correct multiple-choice answer, and reporting category—for each common item.

Item Number corresponds to the number of the question as it appears in the *Release of Spring 1999 Test Items* publication.

Item Type indicates whether the item was a multiple-choice (MC), open-response (OR), or short-answer [(SA) used in Mathematics only] question.

Correct MC Answer provides the letter option (A, B, C, D) for the correct answer for multiple-choice questions.

2 The results from one common question administered in grade 4 Science & Technology in Spring 1999 were not used in determining individual student scores for students who took the large-print version of MCAS. Because of the content of this question, it could not be included in the large-print version of the test. Test scores for students taking the large-print version were statistically adjusted to compensate for the different number of items contributing to their total scores.

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Reporting Category indicates the sub-area in either Mathematics, Science & Technology or History and Social Science in which each question is reported in the *School* and *District Reports*. Reporting category codes are listed in the Legend on the final page of the *Test Item Analysis Report*.

2.Body of the Report

Names	Reporting Category	NS	NS	NS	GM	NS	PR	GM	NS	NS	PR	NS	PR	PR	GM	SP	PR	NS	SP	NS	S
1. LASTNAME1, FIRSTNAME1		+	B	+	C	+	1	0	2	1	0	1	1	C	D	+	A	D	A	B	+
2. LASTNAME10, FIRSTNAME10		C	D	D	D	D	1	0	2	0	0	1	0	A	B	+	C	D	C	B	+
3. LASTNAME100, FIRSTNAME100		+	+	+	+	+	1	0	2	1			0	+		+	+	+	+	C	
4. LASTNAME101, FIRSTNAME101		+	+	D	+	+	1	0	0	1	1	0	0	+	A	+	D	+	+	+	+
5. LASTNAME[illegible] FIRSTNAME102						+	1	0					0	+	D	+					

Individual Student Results

The body of the report lists all students in the tested grade alphabetically by last name. Individual student results are reported in alternately shaded rows across multiple columns. This section contains a row for all students enrolled in the school on the first day of testing. This number was provided by each school principal on the *Principal's Certification of Proper Test Administration* form. Enrolled students for whom no answer booklet was returned are indicated by a blank row. These students were classified as ***Absent*** and received a minimum scaled score of 200. For students who are not included in the computation of aggregate school- and district-level results (see page 21 of this document), individual item results are provided, but no scaled score or performance level is reported. Where the scaled score would be reported, there will be a two- or three-letter code used to identify the reason why this student was not included in the aggregate results. These codes appear in the Legend. A small number of students may receive a code of "INC" signifying that there was incomplete data (e.g., the student's answer booklet and composition could not be matched, or the student responded in more than one answer booklet).

For multiple-choice questions,

- a + sign in any MC column indicates the student answered the question correctly;
- a letter indicates that an incorrect option (A, B, C or D) was selected;
- a blank indicates the student did not answer the question.

Open-response questions were scored on a 0 through 4 scale; the student's scores for open-response questions are shown in the OR columns.

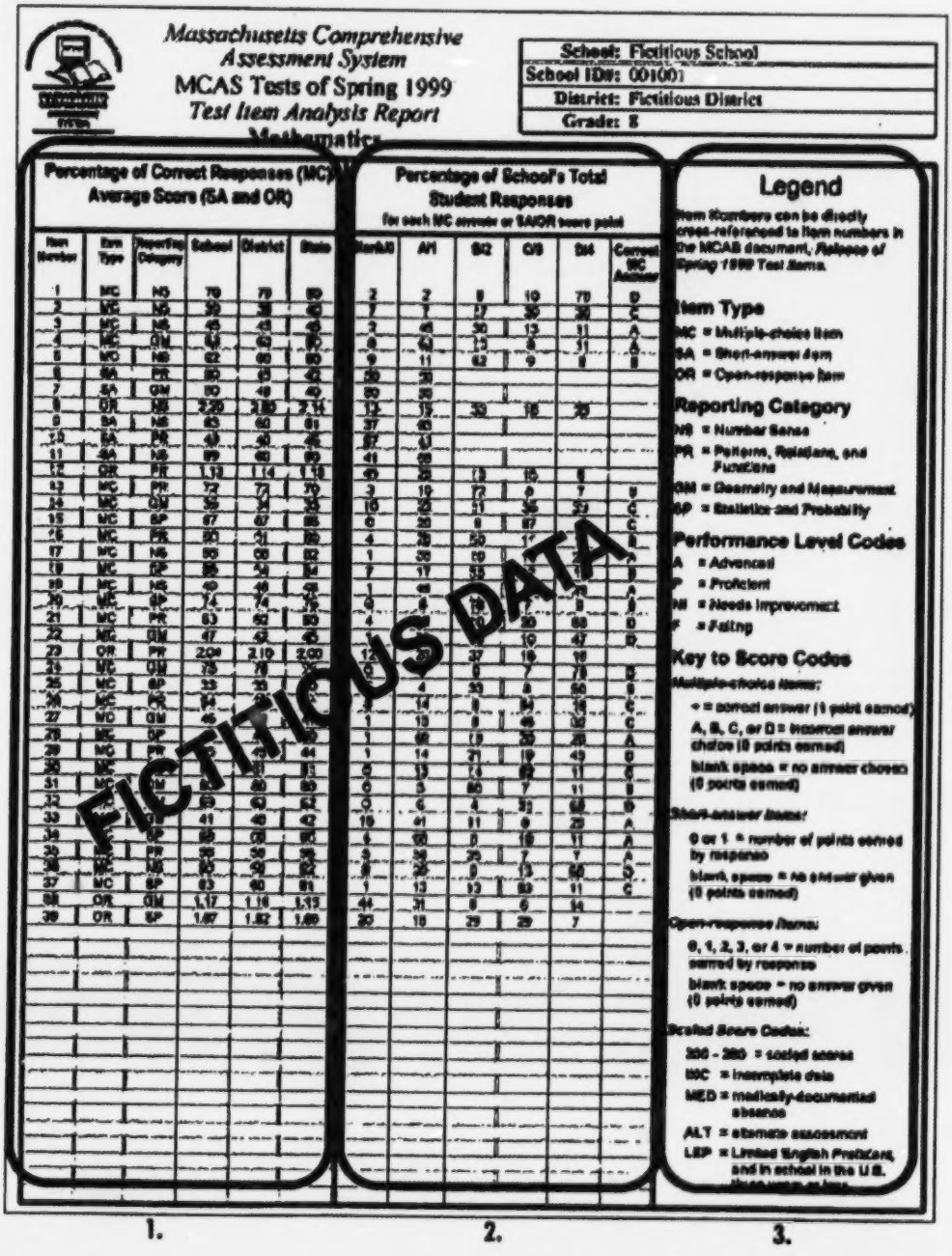
Short-answer questions were used in Mathematics only and were scored on a 0 through 1 scale; the student's scores for short-answer questions are shown in the SA columns only on the Mathematics *Test Item Analysis Report*.

Summary Scores

The final three columns of each row contain summary information about the student's performance The student's Total Score is shown in the column following the final item, reported in terms of "raw" score points attained in Mathematics, Science & Technology, or History and Social Science. The student's Total Score was calculated by adding one point for each correct multiple-choice (MC) question to the student's total scores for each open-response (OR) question and, in Mathematics, each short-answer (SA) question.

RESULTS AGGREGATED AT THE SCHOOL, DISTRICT, AND STATE LEVELS

The final page of the *Test Item Analysis Report* (sample of Mathematics version shown below) summarizes the performance of students on common test items aggregated by school, district, and state. In 1999, Grade 10 History and Social Science results are reported only at the student level. No aggregate school, district, and state results are reported.



Massachusetts Comprehensive Assessment System
MCAS Tests of Spring 1999
Test Item Analysis Report
Mathematics

School: Fictitious School
School ID#: 00100
District: Fictitious District
Grade: 8

Percentage of Correct Responses (MC) Average Score (SA and OR)

Item Number	Item Type	Reporting Category	School	District	State
1	MC	NS	70	70	69
2	MC	NS	39	38	40
3	MC	NS	45	45	45
4	MC	GM	49	49	50
5	MC	NS	82	80	80
6	SA	PR	80	83	82
7	SA	GM	50	49	49
8	OR	NS	2.20	2.05	2.14
9	SA	NS	85	80	81
10	SA	PR	49	50	48
11	SA	NS	89	90	90
12	OR	PR	1.12	1.14	1.13
13	MC	PR	72	72	70
14	MC	GM	36	34	35
15	MC	SP	87	87	88
16	MC	PR	80	81	80
17	MC	NS	85	86	82
18	MC	SP	86	84	84
19	MC	NS	49	48	48
20	MC	SP	74	74	76
21	MC	PR	83	82	80
22	MC	GM	47	45	45
23	OR	PR	2.09	2.10	2.00
24	MC	GM	78	79	76
25	MC	SP	33	33	35
26	MC	PR	84	82	82
27	MC	GM	46	44	45
28	MC	SP	81	81	80
29	MC	PR	63	63	64
30	MC	NS	81	81	81
31	MC	GM	84	80	80
32	MC	NS	59	60	62
33	MC	GM	41	40	42
34	MC	SP	85	86	86
35	MC	PR	58	59	58
36	MC	NS	80	80	82
37	MC	SP	83	80	81
38	OR	GM	1.17	1.16	1.15
39	OR	SP	1.87	1.82	1.89

Percentage of School's Total Student Responses
for each MC answer or SA/OR score point

Rank	A	B	C	D	Correct MC Answer
2	2	8	10	78	D
7	7	37	36	39	C
2	45	30	13	11	A
8	43	13	8	31	A
9	11	62	9	8	B
20	20				
30	30				
12	12	39	16	29	
27	60				
37	63				
41	59				
40	22	13	15	8	
3	10	72	9	7	B
10	22	31	36	33	C
6	22	8	67	3	C
4	28	50	17	5	B
1	30	10	5	54	A
7	17	55	11	17	B
1	44	11	4	79	A
6	6	19	7	8	B
4	9	17	30	69	D
1	3	10	10	47	D
12	25	37	19	16	
21	21	8	7	78	D
2	4	53	8	56	B
3	14	8	34	16	C
1	13	8	46	32	C
1	66	19	20	20	A
1	14	21	19	43	D
6	13	14	62	11	C
6	5	80	7	11	B
9	6	4	31	68	D
19	41	11	9	20	A
4	66	8	18	11	A
3	26	20	7	7	A
8	26	8	13	66	D
1	13	13	63	11	C
44	31	8	6	14	
20	18	29	29	7	

Legend

Item numbers can be directly cross-referenced to item numbers in the MCAS document, *Release of Spring 1999 Test Items*.

Item Type
MC = Multiple-choice item
SA = Short-answer item
OR = Open-response item

Reporting Category
NS = Number Sense
PR = Patterns, Relations, and Functions
GM = Geometry and Measurement
SP = Statistics and Probability

Performance Level Codes
A = Advanced
P = Proficient
NI = Needs Improvement
F = Failing

Key to Score Codes

Multiple-choice items:
* = correct answer (1 point earned)
A, B, C, or D = incorrect answer choice (0 points earned)
blank space = no answer chosen (0 points earned)

Short-answer items:
0 or 1 = number of points earned by response
blank space = no answer given (0 points earned)

Open-response items:
0, 1, 2, 3, or 4 = number of points earned by response
blank space = no answer given (0 points earned)

Scaled Score Codes:
200 - 280 = scaled scores
INC = incomplete data
MED = medically-documented absence
ALT = alternate assessment
LEP = Limited English Proficient, and in school in the U.S. [illegible]

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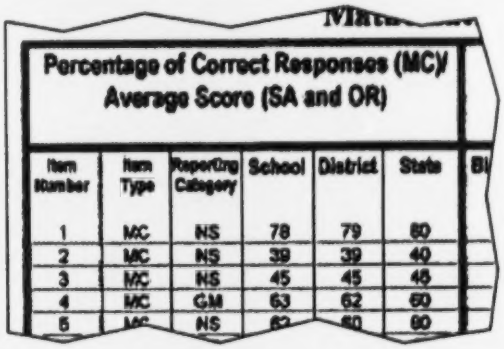
The student's scaled score is shown in the next column to the right, reported on a scaled ranging from 200 to 280. This scaled score translates to one of the performance levels indicated in the final column. *Note:* In 1999, no scaled score or performance level is reported on the Grade 10 History and Social Science test.

1. Percentage of Correct Responses (MC)/Average Score (SA and OR in Mathematics; OR in Science & Technology, History and Social Science)

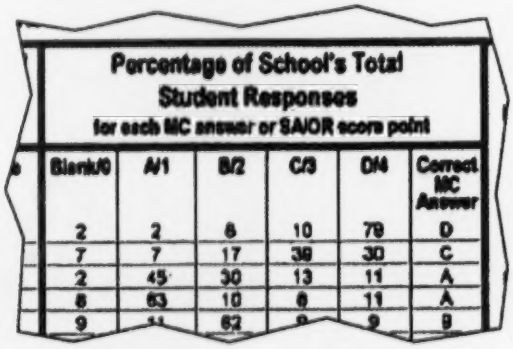


Percentage of Correct Responses (MC)/ Average Score (SA and OR)

Item Number	Item Type	Reporting Category	School	District	State	BI
1	MC	NS	78	79	80	
2	MC	NS	39	39	40	
3	MC	NS	45	45	46	
4	MC	GM	63	62	60	
5	MC	NS	82	80	80	

This section shows aggregated data for the school, district, and state. Items are listed by number, type, and reporting category, as explained earlier in this chapter. This section shows, for the school, district, and state, the percentage of correct responses for each multiple-choice question and the average score for each open-response question and, for Mathematics, each short-answer question. These statistics allow educators to compare the performance of students in the school to students in the district and across Massachusetts, and identify strengths and weaknesses in curriculum and instruction.

2. Percentage of School's Total Student Responses



Percentage of School's Total Student Responses
for each MC answer or SA/OR score point

Blank/0	A/1	B/2	C/3	D/4	Correct MC Answer
2	2	8	10	78	D
7	7	17	39	30	C
2	45	30	13	11	A
8	63	10	8	11	A
9	53	62	9	9	B

This section shows two kinds of aggregated data:

- For each multiple-choice question, this section shows the percentage of students in the school who chose each answer option (blank, A, B, C, or D); the correct answer is provided in the far right column. This information allows educators to analyze students' mistakes to identify possible misconceptions held by students in the school.

- For **open-response and short-answer** (in Mathematics only) questions, the section shows the percentage of students in the school at each score point (blank/0, 1, 2, 3, or 4 for open-response questions; blank/0 or 1 for short-answer questions).

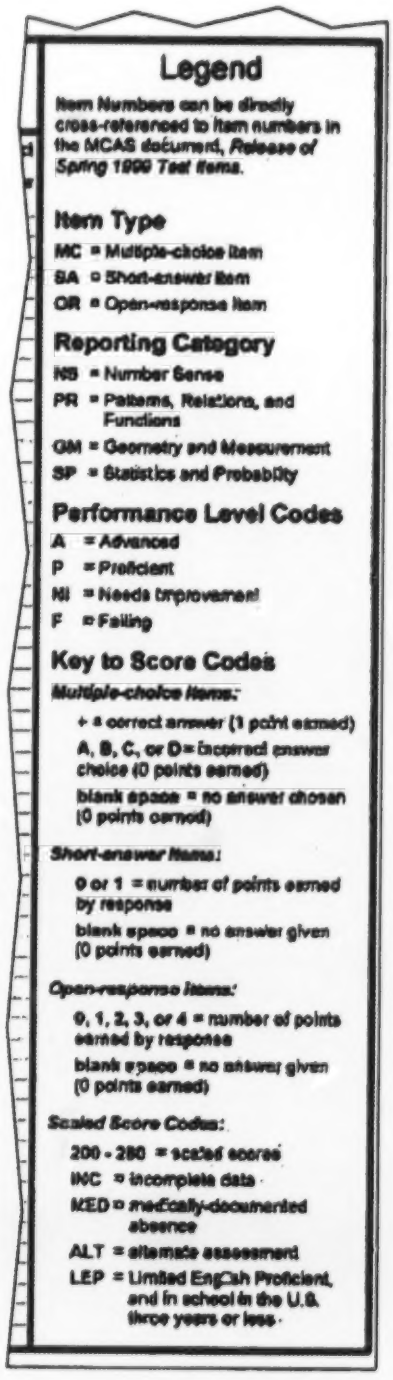
3. Legend

This section explains how to interpret codes that appear throughout the report pages.

The information on **Item Numbers** and **Item Type** applies to both the first section of the report and this final page.

Reporting Category information given here refers to the two-letter codes that appear in columns (above the horizontal line) within the first section of the report. A complete list of MCAS reporting categories is provided in Appendix B of this document.

The information given in the **Key to Score Codes** section explains the symbols, letters, and numbers used to report student's performance.



Legend

Item Numbers can be directly cross-referenced to item numbers in the MCAS document, *Release of Spring 1999 Test Items.*

Item Type

MC = Multiple-choice item
SA = Short-answer item
OR = Open-response item

Reporting Category

NS = Number Sense
PR = Patterns, Relations, and Functions
GM = Geometry and Measurement
SP = Statistics and Probability

Performance Level Codes

A = Advanced
P = Proficient
NI = Needs Improvement
F = Failing

Key to Score Codes

Multiple-choice items:

+ = correct answer (1 point earned)
A, B, C, or D = incorrect answer choice (0 points earned)
blank space = no answer chosen (0 points earned)

Short-answer items:

0 or 1 = number of points earned by response
blank space = no answer given (0 points earned)

Open-response items:

0, 1, 2, 3, or 4 = number of points earned by response
blank space = no answer given (0 points earned)

Scaled Score Codes:

200 - 280 = scaled scores
INC = incomplete data
MED = medically-documented absence
ALT = alternate assessment
LEP = Limited English Proficient, and in school in the U.S. three years or less

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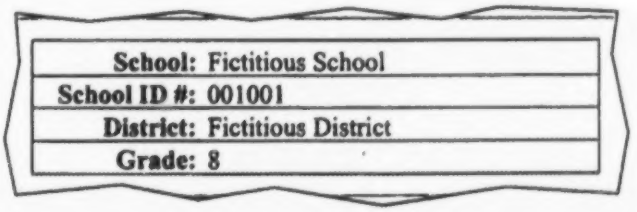
IV. Understanding the School and District Reports

OVERVIEW

The *School Report* and the *District Report* each provide MCAS results for schools/districts based on the testing of local students in grades 4, 8, or 10. A separate *School Report* and *District Report* has been produced for each grade level—4, 8, or 10—tested in spring 1999.

Text in this chapter refers only to the *MCAS School Report*. The data which are reported, the report format, and guidelines for interpreting the reported data are identical for the *School Report* and the *District Report*. The only difference between the *School Report* and the *District Report* is that the *District Report* includes no individual school data. Educators and others who are reviewing the *District Report* should refer to this chapter for applicable information.

IDENTIFICATION



The box in the upper right corner of each page shows the school name, its six-digit identification number, the district name, and the grade level for which the report has been generated.

BASIS FOR RESULTS

With the exception of subject area subscores, all results in the *MCAS School Report* are based solely on common items (the set of items answered by all students), and represent the aggregate of individual student scores (performance level results and scaled scores). See page 26 of this chapter for information on interpreting subject area subscores.

MINIMUM NUMBER OF STUDENTS NEEDED TO GENERATE REPORTS

In order to ensure confidentiality of individual student results and discourage generalizations about school performance based on very small populations, the Department of Education has established minimum numbers of students tested for reporting results for

- overall school averages
- school averages disaggregated by student status
- subject area subscores

Consequently, schools with a very small number of students enrolled in a grade tested may not show results in some sections of their *School Report*. No *School Report* is generated for any school that tested fewer than ten students at a particular grade; results for students in these schools are included in district- and/or state-level results. The minimum number of tested students required for each reporting section is presented in the table below.

TABLE 2. MINIMUM NUMBER OF STUDENTS TESTED (AT EACH GRADE) TO GENERATE SCHOOL RESULTS

Reporting Section	*Minimum Number of Students*
Percentages of Students by Performance Level and Scaled Scores	10
Performance Level and Scaled Score Results Disaggregated by Student Status	10
Subject Area Subscores[3]	12

ORGANIZATION OF SCHOOL REPORT

Each *School Report* includes the following categories of results from the spring 1999 MCAS tests:

A. Students Tested

B. Performance Level Results

C. Distribution of Results by Scaled Score Interval

D. Results by Student Status

E. Subject Area Subscores

F. Three-Year Comparison of School Results

3 All twelve forms of the test must have been administered in a school for accurate computation of subject area subscores. If fewer than the 12 forms of the test were administered in a school, subject area subscores were not produced for that school.

A. STUDENTS TESTED

(Report pages 3–5 for grades 4 & 10; pages 3–6 for grade 8)

The pages titled **Students Tested** show, for the school, district, and state, the number and percentage of students in each of three student status groups included/not included in scores in the spring 1999 MCAS tests.

Data for student participation by subject area can be found on the following pages of the *Report:*

- Page 3: Student participation in English Language Arts
- Page 4: Student participation in Mathematics
- Page 5: Student participation in Science & Technology
- Page 6: Student participation in History and Social Science (Grade 8 only)

For each of the above, data for students included/not included in scores at the school level are reported according to the following student status groups (these definitions are also found on page 2 of the *Report):*

- **Regular:** Students who did not meet the definitions below for Students with Disabilities or Limited English Proficient (LEP) students as of spring 1999.
- **Students with Disabilities:** Students who had an Individualized Education Plan (IEP) or were provided with a plan of instructional accommodations under Section 504 of the Rehabilitation Act of 1973 as of spring 1999.
- **Limited English Proficient:** Limited English Proficient students were defined as students who, in spring 1999, were:

  (1) enrolled in a Transitional Bilingual Education (TBE) program or received English as a Second Language (ESL) support; OR

  (2) not born in the United States, whose native language is a language other than English, and who are currently not able to perform ordinary classroom work in English; OR

  (3) born in the United States to non-English speaking parents and who are currently not able to perform ordinary classroom work in English.

The table below is an example of those included on pages 3 to 6 of the *School* and *District Reports.*

TABLE 3: SAMPLE TABLE SHOWING STUDENTS INCLUDED IN SCORES AND NOT INCLUDED IN SCORES

STUDENT STATUS	NUMBER OF STUDENTS ENROLLED	INCLUDED IN SCORES				NOT INCLUDED IN SCORES			
		TESTED		ABSENT		MEDICALLY DOCUMENTED		OTHER NOT TESTED	
		#	%	#	%	#	%	#	%
REGULAR	175	170	97	5	3	0	0	0	0
STUDENTS WITH DISABILITIES	20	18	90	1	5	0	0	1	5
LIMITED ENGLISH PROFICIENT	5	3	60	0	0	0	0	2	40
TOTAL	200	191	96	6	3	0	0	3	1

Number of Students Enrolled

Column 2 of each table shows the number of students Enrolled in the tested grade on the first day of testing. The total number of students Enrolled is comprised of the number of students Tested or Absent plus the number of students that were Medically Documented Absent and Other Not Tested. The number of students reported as enrolled in English Language Arts on page 3 of the *School Report* may differ from the corresponding numbers for other subject areas on pages 4–6 because the Composition portion of the English Language Arts test was administered during a separate testing period. This enrollment information was provided by each school principal on the *Principal's Certification of Proper Test Administration* form.

Students Included in Scores

Columns 3 through 6 of each table show the number and percentage of students who were included in the 1999 MCAS school results.

Tested Students

The numbers and percentages of Regular students include students who do not meet the definition of Students with Disabilities or Limited English Proficient (LEP) students and who participated under standard conditions.

The numbers and percentages of Students with Disabilities include students who participated under standard conditions, as well as students who participated with approved accommodations in accordance with Department of Education guidelines.

The numbers and percentages of Limited English Proficient (LEP) students include LEP students who took the English version of MCAS (primarily, LEP students who had been enrolled in school in the United States for more than three years), as well as eligible LEP students who took the Spanish-language version of MCAS. The Spanish-language version of MCAS included tests in Mathematics, Science & Technology, and History and Science only; English Language Arts tests were not included. Therefore, limited English proficient students who took the Spanish-language version of MCAS are shown as Other Not Tested on the English Language Arts page (page 3) of the *School Report*.

The status of Student with Disabilities or Limited English Proficient is indicated separately for each subject area since discrepancies in the number of students in these categories across subject areas would result from inconsistent indications for a student across subject areas.

Absent Students

Columns 5 and 6 show the number and percentage of absent students who were reported absent during the testing period in spring 1999 (indicated by designated school personnel on *Student Answer Booklets)*. Enrolled students for whom no answer booklets were returned were also defined as Absent.

What is the impact of students who were Absent? Students from any student status group who were absent during the testing period, and who did not receive a medically documented absence, received a minimum score of 200, and by default, a performance level of *Failing*. Absent students are included in the determination of the scaled scores and performance level results for schools. This reporting decision was made to support the legal requirement that all students participate in the MCAS testing program.

Some students reported as Absent on the *Student Answer Booklet* participated in one or more portions of a subject area test. In some instances, schools inadvertently marked Absent on the booklets of these students. In other cases, these students may have been present for some, but not all, portions of the test.

Given that these students would receive the minimum score of 200 by default, these students were designated as Tested and received their actual score (equal to or greater than 200) based on the portions of the subject area test in which they participated.

Students Not Included in Scores

Columns 7–10 of each table on pages 3–6 show the number and percentage of students who did not participate in the spring 1999 MCAS tests, and were reported as either Medically Documented Absent or Other Not Tested.

Medically Documented Absent Students

Students who obtained a written statement from a licensed medical doctor, stating both the medical reason that prevented them from taking the test and the dates for which they were absent due to the medical condition.

What is the impact of students who were Medically Documented Absent? Medically Documented Absent students were not included in the determination of scaled score or performance level results.

Other Not Tested

Three categories of students are reported as Other Not Tested:[4]

(1) students with disabilities for whom the standard test was not appropriate even with accommodations and who participated in MCAS through a locally developed alternative assessment

(2) limited English proficient (LEP) students who had been in school in the United States for three or fewer years and for whom the Spanish-language version of MCAS was not required in accordance with Department guidelines (designated as Other Not Tested for all subject area tests)

(3) limited English proficient (LEP) students who had been in school in the United States for three or fewer years who participated in the Spanish-language version of MCAS and who, consequently, were designated as Other Not Tested for English Language Arts tests only since there is no Spanish version of the English Language Arts test. The Spanish-language version included tests for Mathematics, Science & Technology, and History and Social Science only; there was no English Language Arts section in the Spanish-language version of MCAS.

What is the impact of students who were Other Not Tested? Since students who were Other Not Tested could not participate in the standard version of MCAS, average school scores are not affected by Other Not Tested students. Unlike students reported as absent, these students were not assigned minimum scores and were not included in computation of school and district averages.

4 Additionally, there are a small number of cases where *Student Answer Booklets* or *Composition Booklets* could not be matched or students responded in more than one test booklet. For 1999 reports, these cases are also reported as Other Not Tested.

B. PERFORMANCE LEVEL RESULTS

(REPORT PAGE 6 FOR GRADES 4 & 10; PAGES 7 FOR GRADE 8)

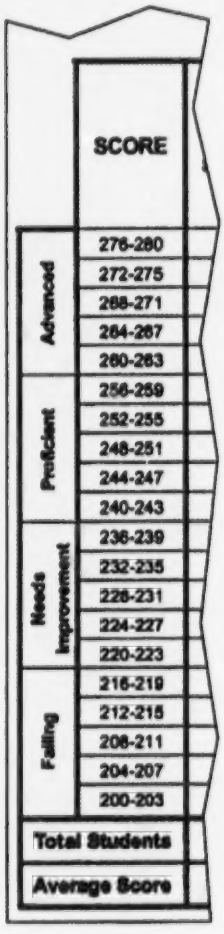
Performance level results indicate, for each of the subject areas tested, the percentage of students performing at each of the four MCAS performance levels: *Advanced, Proficient, Needs Improvement,* and *Failing.* These percentages are based on the results of all tested students, including regular education students; students with disabilities (who participated with or without accommodations); and limited English proficient students (who participated in either the English or the Spanish-language version of MCAS). These results also include Absent students who received the minimum score (200/Failing), but do not include Medically Documented Absent or Other Not Tested students (defined above), for whom results were not generated.

C. DISTRIBUTION OF RESULTS BY SCALED SCORE INTERVAL

(REPORT PAGE 7 FOR GRADES 4 & 10; PAGE 8 FOR GRADE 8)

These results show the distribution of student performance across the four MCAS performance levels—*Advanced, Proficient, Needs Improvement,* and *Failing*—for each of the subject areas tested. The distribution within each performance level is also shown across five score intervals. The percentage and number of students (at the school, district, and state levels) performing at each of these intervals are displayed.

This table is designed to help schools see how students are clustered within each performance level and to measure movement within levels over time. It can also be used to illustrate how two or more schools with similar percentages of students at each performance level may have very different average scaled scores, resulting from different distributions of individual scores within performance levels.



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D. RESULTS BY STUDENT STATUS

(REPORT PAGES 8–10 FOR GRADES 4 & 10; PAGES 9–12 FOR GRADE 8)

The information on these report pages serves two primary purposes: to see how effectively school programs serve various student populations, and to promote fair comparisons between schools and between districts by allowing them to compare the performances of similar student groups.

Subject-specific performance level results disaggregated by student subgroup can be found as follows (for student status definitions, see page 21 of this chapter):

- Page 8: English Language Arts Results by Student Status
- Page 9: Mathematics Results by Student Status
- Page 10: Science & Technology Results by Student Status
- Page 11: History and Social Science Results by Student Status (for Grade 8 only)

Each page shows subject-specific results for the following student status groups:

- All students (Total)
- Regular education students (Regular)
- Students with Disabilities
- Limited English Proficient students

Within each of these student status sections, pie charts graphically display the performance level results (percentage of students performing at each level) for the school, district, and state. The pie charts are shaded according to the key found in the table to the right. This table also shows the numbers of students at each performance level. Below each pie chart is the average scaled score for the school, district, and state, respectively.

E. SUBJECT AREA SUBSCORES

(REPORT PAGES 11–12 FOR GRADES 4 & 10; PAGES 13–14 FOR GRADE 8)

The purpose of these report sections is to help schools determine the extent to which their curriculum and instruction are effective in helping students achieve the standards contained in particular strands and substrands of the *Curriculum Frameworks*.

Subject area subscores are the only reported MCAS scores based on both common and matrix-sampled items. Unlike common items, matrix-sampled items differ across test forms and are used to report performance on a broader range of specific curriculum goals than is possible by using common items only.

Subject area subscores provide specific information on performance in various subdomains ("Reporting Categories") of the tested subject areas, for example, Geometry and Measurement is a subdomain of grade 4 Mathematics.[5] In some subject areas, many fewer categories are included on the reports in 1999 than in 1998. In 1999, results have been collapsed into broader subdomains to minimize misinterpretation of the small differences in performance in reporting categories that are based on small numbers of items. For a complete listing of the 1999 MCAS reporting categories, see Appendix B.

Information about each reporting category within each subject area tested includes

- the number of possible points for that category on the common items, the matrix items, and the total number of possible points.
- the average total number of points attained and the percentage of the total possible number of points attained at the school, district, and state levels.[6]

Subject area subscore results by subject area tested are provided on the following pages of the *Report:*

- Page 11: English Language Arts
- Page 11: Mathematics
- Page 12: Science & Technology
- Page 12: History and Social Science (Grade 8 only)

CAUTION: ***Raw Scores versus Scaled Scores.*** The total number of possible points for a particular subject area reporting category is based on raw score points, which are not the same as scaled scores used elsewhere throughout the *Report*. Raw scores are the total number of points earned for all items administered in a particular subject area. Raw scores are converted to scaled scores through a data analysis process known as scaling. Scaling converts raw data points from one scale to another in a process that is analogous to the conversion of temperature in degrees Fahrenheit to degrees Celsius. See Appendix A for tables of the Raw Score to Scaled Score Conversions.

5 All twelve forms of the test must have been administered in a school for accurate computation of subject area subscores. If fewer than 12 forms of the test were administered in a school, subject area subscores were not reported for that school.

6 Because schools may have had somewhat different numbers of students taking each of the twelve test forms, average points were determined in a two-step process. First, the average raw score was determined for each unique item. Second, the sum of the average raw scores computed in step 1 was calculated.

CAUTION: ***Longitudinal Comparisons.*** It is not appropriate to compare performance on subject area subscores across years because the number of items contributing to each subscore is relatively small and the difficulty of the items may vary somewhat from year to year. This caution applies only to subject area subscores, not to performance level results and scaled scores. This is because performance level results and scaled scores are based solely on common items; scores based on common items will be statistically equated from year to year. The pool of matrix-sampled items will vary from year to year as items move from the matrix-sampled sections to the common sections of the tests to replace publicly released common items. New items will be developed annually to supplement the matrix-sampled item pool.

F. THREE-YEAR COMPARISON OF SCHOOL RESULT

(REPORT PAGES 13–15 FOR GRADES 4 & 10; PAGES 15–18 FOR GRADE 8)

In the future, schools will be able to make longitudinal comparisons of performance level results and scaled scores. These pages of the *1999 School Report* reflect the results of the 1998 and 1999 MCAS tests. Eventually, these data can be used to conduct longitudinal (three years of data) comparisons of results for English Language Arts (page 13), Mathematics (page 14), Science & Technology (page 15), and History and Social Science (page 16). *Note:* for History and Social Science there were no scores in 1998 and there were results for grade 8 only in 1999.

Appendix A

Raw Score to Scaled Score Conversions

1999 MCAS Grade 4 Raw Score to Scaled Score Conversions

Total Score	*English Language Arts Scaled Score*	*Mathematics Scaled Score*	*Science & Technology Scaled Score*
72*	-	-	-
71	270	-	-
70	270	-	-
69	268	-	-
68	268	-	-
67	266	-	-
66	264	-	-
65	264	-	-
64	262	-	-
63	258	-	-
62	256	-	-
61	256	-	-
60	254	-	-
59	252	-	-
58	250	-	-
57	250	-	-
56	248	-	-
55	246	-	-
54	244	280	280
53	242	280	280
52	242	278	280
51	240	276	278
50	238	274	276
49	238	272	274
48	236	270	272
47	236	266	270
46	236	264	268
45	234	262	266
44	234	260	264
43	232	256	262
42	230	254	262
41	230	252	260
40	228	250	258
39	228	248	256

*One common multiple-choice item on the ELA test was not used in the calculation of any scores. Therefore the maximum possible score is 71 points.

1999 MCAS Grade 4 Raw Score to Scaled Score Conversions (continued)

Total Score	*English Language Arts Scaled Score*	*Mathematics Scaled Score*	*Science & Technology Scaled Score*
38	228	244	254
37	226	242	252
36	226	240	250
35	224	238	248
34	224	236	246
33	222	236	244
32	222	234	242
31	220	232	240
30	220	230	240
29	220	230	238
28	218	230	236
27	218	228	234
26	216	226	232
25	216	224	230
24	214	224	230
23	214	222	228
22	214	220	226
21	214	220	224
20	212	218	222
19	212	218	220
18	210	216	220
17	210	214	218
16	208	212	216
15	208	212	214
14	206	212	212
13	206	210	210
12	206	208	208
11	204	206	206
10	204	206	206
9	204	204	204
8	200	202	204
7	200	200	202
6	200	200	200
5	200	200	200
4	200	200	200
3	200	200	200
2	200	200	200
1	200	200	200
0	200	200	200

1999 MCAS Grade 8 Raw Score to Scaled Score Conversions

Total Score	*English Language Arts Scaled Score*	*Mathematics Scaled Score*	*Science & Technology Scaled Score*	*History and Social Science Scaled Score*
72	268	-	-	-
71	268	-	-	-
70	268	-	-	-
69	266	-	-	-
68	266	-	-	-
67	262	-	-	-
66	262	-	-	-
65	260	-	-	-
64	260	-	-	-
63	258	-	-	-
62	256	-	-	-
61	256	-	-	-
60	254	-	-	-
59	254	-	-	-
58	252	-	-	-
57	250	-	-	-
56	250	-	-	-
55	248	-	-	-
54	248	274	280	280
53	248	272	276	276
52	246	270	276	274
51	244	268	274	272
50	244	266	274	268
49	242	264	272	266
48	242	262	268	264
47	240	260	266	260
46	240	258	264	258
45	238	256	262	256
44	236	254	260	252
43	236	252	256	250
42	234	252	254	248
41	234	250	252	244
40	232	248	250	242
39	230	246	248	240
38	228	244	246	238
37	228	242	242	236
36	226	242	240	234
35	224	240	238	232
34	224	238	234	232
33	222	236	232	230
32	220	234	230	228

1999 MCAS Grade 8 Raw Score to Scaled Score Conversions (continued)

Total Score	*English Language Arts Scaled Score*	*Mathematics Scaled Score*	*Science & Technology Scaled Score*	*History and Social Science Scaled Score*
31	218	232	226	226
30	218	232	224	224
29	218	230	222	224
28	216	228	218	222
27	214	226	216	220
26	212	224	214	218
25	212	222	210	218
24	210	220	208	216
23	208	220	206	214
22	208	218	206	212
21	206	216	202	210
20	204	214	200	210
19	202	212	200	208
18	202	210	200	206
17	200	208	200	204
16	200	206	200	202
15	200	204	200	202
14	200	202	200	200
13	200	200	200	200
12	200	200	200	200
11	200	200	200	200
10	200	200	200	200
9	200	200	200	200
8	200	200	200	200
7	200	200	200	200
6	200	200	200	200
5	200	200	200	200
4	200	200	200	200
3	200	200	200	200
2	200	200	200	200
1	200	200	200	200
0	200	200	200	200

1999 MCAS Grade 10 Raw Score to Scaled Score Conversions

Total Score	*English Language Arts Scaled Score*	*Mathematics Scaled Score*	*Science & Technology Scaled Score*
72	280	-	
71	278	-	
70	278	-	
69	274	-	
68	272	-	
67	270	-	
66	268	-	
65	266	-	
64	264	-	
63	262	-	
62	260	-	
61	258	-	
60	256	280	280
59	256	280	280
58	252	280	280
57	252	280	280
56	250	280	280
55	248	280	278
54	246	280	276
53	244	280	274
52	244	278	272
51	240	276	272
50	240	274	270
49	238	272	268
48	236	268	266
47	236	266	264
46	232	264	262
45	232	264	262
44	230	260	258
43	228	258	256
42	226	256	254
41	224	254	252
40	224	250	252
39	222	248	250
38	220	248	248
37	218	246	244
36	216	244	242
35	214	242	242
34	212	240	240
33	210	236	238
32	210	234	236
31	208	232	234

1999 MCAS Grade 10 Raw Score to Scaled Score Conversions (continued)

Total Score	*English Language Arts: Scaled Score*	*Mathematics Scaled Score*	*Science & Technology Scaled Score*
30	206	230	232
29	204	228	230
28	202	226	228
27	202	226	228
26	200	224	226
25	200	222	224
24	200	220	220
23	200	218	220
22	200	216	218
21	200	214	216
20	200	212	214
19	200	210	214
18	200	208	212
17	200	206	210
16	200	202	208
15	200	200	208
14	200	200	204
13	200	200	202
12	200	200	200
11	200	200	200
10	200	200	200
9	200	200	200
8	200	200	200
7	200	200	200
6	200	200	200
5	200	200	200
4	200	200	200
3	200	200	200
2	200	200	200
1	200	200	200
0	200	200	200

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Calculating Threshold Scores

In 1998, in order to determine the minimum total test score (threshold score) for each performance level on each English Language Arts, Mathematics, and Science & Technology test, panelists examined sets of student work in a standard-setting process. The standards established for these subject areas in 1998 remain unchanged for the 1999 MCAS tests. However, because the common test items on the 1999 MCAS tests are different from the common items on the 1998 test, the threshold scores representing those standards may change. In part, a change in threshold scores may be due to differences in difficulty between the 1998 and 1999 MCAS test items. To some extent, however, the change in threshold scores is simply due to the changes in the number of multiple-choice and open-response items, and the change in the maximum possible score on most tests. Using the matrix-sampled items which remained unchanged from 1998 to 1999, the 1998 and 1999 MCAS tests are linked through a process called equating. Based on the equating process, the adjustments in the threshold scores needed to maintain the 1998 standards on the 1999 MCAS tests are determined.

The eighth grade History and Social Science test was administered for the first time in 1999. In August 1999, threshold scores for each performance level on the History and Social Science test were established at a standard-setting meeting. The procedures used to establish the threshold scores for this test were consistent with the standard-setting procedures used to establish threshold scores for the 1998 MCAS tests.

Threshold Scores, MCAS Tests of May 1999

			Threshold Score Between Levels		
Grade	Subject Area	Maximum Score*	Advanced/ Proficient	Proficient/ Needs Improvement	Needs Improvement/ Failing
4	English Language Arts	71	64	51	29
	Mathematics	54	44	36	21
	Science & Technology	54	41	30	18
8	English Language Arts	72	64	46	32
	Mathematics	54	47	35	23
	Science & Technology	54	44	36	29
	History and Social Science	54	47	39	27
10	English Language Arts	72	62	50	38
	Mathematics	60	44	34	24
	Science & Technology	60	45	34	23

* The Maximum Score is the total number of points that a student could earn in the subject area if he/she answered all of the multiple-choice questions correctly (one point per question) and received the highest possible scores for all open-response questions, short-answer questions, and writing compositions.

Appendix B

MCAS 1999 Reporting Categories

MCAS reporting categories used in 1998 were collapsed in 1999 to discourage the misinterpretation of results based on the small numbers of questions upon which some 1998 reporting categories were based. When interpreting test results, however, it is still important to have a clear understanding of the content covered by the test questions. The tables in this Appendix show the number and the percentage of points on the entire test (common and matrix items) within each of the 1999 reporting categories. A check mark (✓) signifies that this subarea is included within the reporting category.

For further information on reporting categories and their related assessment expectations, refer to the publication, *MCAS Guide to the Massachusetts Comprehensive Assessment System* for each content area.

English Language Arts
Grade 4, 8 and 10:

Language
Literature
Composition: Topic Development
Composition: Writing Conventions

Mathematics
Grade 4, 8 and 10:

Number Sense
Patterns, Relations, and Functions
Geometry and Measurement
Statistics and Probability

Science & Technology
Grade 4, 8 and 10:

Inquiry
Physical Sciences
Life Sciences
Earth and Space Sciences
Technology

History and Social Science
Grade 8 and 10:

U.S. History (Grade 8 only)
World History
Geography
Economics
Civics and Government

English Language Arts

	Grade 4		Grade 8		Grade 10	
	Points	Percent	Points	Percent	Points	Percent
Language	36	11.6%	29	9.3%	33	10.6%
Literature	255	82%	263	84.3%	259	83.0%
Composition *	20	6.4%	20	6.4%	20	6.4%
Topic Development	✓		✓		✓	
Conventions	✓		✓		✓	
TOTAL	311	100%	312	100%	312	100%

*There was one unique common prompt for Composition administered at grades 4, 8, and 10 in 1999. Students could earn up to 6 points for Topic Development, and up to 4 points for Use of Standard English Conventions (a total of 10 points). Each composition was scored twice (once by each of two different scorers) and the scores were combined. Therefore, a student could earn up to a maximum of 20 points on the Composition section of the MCAS.

MATHEMATICS

	Grade 4		Grade 8		Grade 10	
Reporting Category	Points	Percent	Points	Percent	Points	Percent
NUMBER SENSE	68	34.3%	50	25.3%	41	20.1%
Number Sense and Numeration	✓					
Concepts of Whole Numbers	✓					
Fractions and Decimals	✓					
Estimation	✓					
Whole Number Computation	✓					
Number and Number Relationships			✓			
Number Systems, Number Theory			✓			
Computation, Estimation			✓			
Ratio, Proportion, Percent			✓			
Discrete Mathematics					✓	
Mathematical Structure					✓	
Estimation					✓	
PATTERNS, RELATIONS, AND FUNCTIONS	41	20.7%	59	29.8%	65	31.9%
Patterns and Relations	✓					
Algebra and Mathematical Structure	✓					
Patterns and Functions			✓			
Algebra			✓		✓	
Functions and Relationships					✓	
Trigonometry					✓	
GEOMETRY AND MEASUREMENT	52	26.3%	50	25.3%	61	29.9%
Geometry and Spatial Sense	✓				✓	
Measurement	✓		✓		✓	
Geometry			✓			
Geometric Measurement			✓			
Geometry from an Algebraic Perspective					✓	
STATISTICS AND PROBABILITY	37	18.7%	39	19.7%	37	18.1%
Statistics			✓		✓	
Probability			✓		✓	
TOTAL	198	100%	198	100%	204	100%

SCIENCE & TECHNOLOGY

	Grade 4		Grade 8		Grade 10	
	Points	Percent	Points	Percent	Points	Percent
INQUIRY	36	19.4%	29	15.7%	14	6.9%
Classification	✓					
Designing an Investigation	✓		✓		✓	
Data Collection, Measurement, and Display	✓		✓			
Analysis and Interpretation of Data	✓		✓		✓	
PHYSICAL SCIENCES	37	19.9%	34	18.4%	52	25.5%
Properties of Matter	✓		✓			
Structure of Matter					✓	
Interactions of Substances					✓	
Position and Motion of Objects	✓				✓	
Motion			✓			
Energy	✓		✓		✓	
LIFE SCIENCES	40	21.5%	35	18.9%	49	24.0%
Characteristics of Organisms	✓		✓		✓	
Adaptations, Diversity, and Heredity	✓					
Diversity, Adaptation, and Reproduction			✓			
Heredity and Evolution					✓	
Organisms and Environments	✓					
Ecosystems and Organisms			✓			
Ecosystems					✓	
EARTH AND SPACE SCIENCES	37	19.9%	41	22.2%	48	23.5%
Properties of Earth's Materials	✓					
Interactions/Cycles in the Earth System			✓			
Earth's Processes					✓	
Objects in the Sky	✓					
Earth and Space			✓			
Solar System and Universe					✓	
TECHNOLOGY	36	19.4%	46	24.9%	41	20.1%
The Design Process	✓		✓		✓	
Understanding and Using Technology	✓		✓		✓	
Science, Technology, and Human Affairs	✓		✓		✓	
TOTALS	186	100%	185	100%	204	100%

History and Social Science

	Grade 8		Grade 10	
	Points	Percent	Points	Percent
History:				
World	29	15.7%	99	47.4%
United States	51	27.6%		
Chronology and Cause	✓		✓	
Historical Understanding	✓		✓	
Research, Evidence and Point of View	✓		✓	
Society, Diversity, Commonality and the Individual	✓		✓	
Interdisciplinary Learning: Religion, Ethics, Philosophy and Literature	✓		✓	
Interdisciplinary Learning: Natural Science, Math and Technology	✓		✓	
Geography	38	20.5%	31	14.8%
Physical Spaces of the Earth	✓		✓	
Places and Regions of the World	✓		✓	
Effects of Geography	✓		✓	
Human Alteration of the Environment	✓		✓	
Economics	34	18.4%	29	13.9%
Fundamental Economic Concepts	✓		✓	
Economic Reasoning	✓		✓	
American and Massachusetts Economic History	✓		✓	
Today's Economy	✓		✓	
Theories of Economy	✓		✓	
Civics and Government	33	17.8%	50	23.9%
Authority, Responsibility and Power	✓		✓	
Founding Documents	✓		✓	
Principles and Practices	✓		✓	
Citizenship	✓		✓	
Forms of Government	✓		✓	
TOTAL	185	100%	209	100%

English Language Arts General Performance Level Definitions

	Needs Improvement 220-239 *On MCAS, a student at this level:*	Proficient 240-258 *On MCAS, a student at this level:*	Advanced 260-280 *On MCAS, a student at this level:*
Language/Vocabulary	demonstrates a modest reading vocabulary and partial understanding of word parts and word relationships	demonstrates a solid reading vocabulary and a general understanding of word parts and word relationships	demonstrates a comprehensive reading vocabulary and an in-depth understanding of word parts and word relationships
Comprehension	demonstrates an understanding of concrete ideas, and partial understanding of abstract or implied ideas, in grade-appropriate texts connects some ideas within texts	demonstrates an understanding of many concrete ideas, and most abstract and implied ideas, in grade-appropriate texts connects ideas within texts and provides supporting evidence	demonstrates an in-depth understanding of concrete ideas, abstract ideas, and complex meanings in grade-appropriate texts connects complex ideas within texts provides well-reasoned and well-supported arguments
Text Elements and Techniques	shows partial understanding of how structure and genre enhance the author's purpose or theme identifies obvious examples of some techniques authors use	shows clear understanding of structure and genre and how they support the author's purpose or theme identifies more subtle examples of techniques authors use in a variety of texts	critically evaluates how structure and genre support the author's purpose or theme identifies and critically evaluates techniques authors use in a wide variety of texts
Composition	writes partially organized compositions with modestly developed ideas, some supporting detail, and some demonstration of focus uses simplistic language and sentence structure	writes well-organized compositions with logically developed ideas, adequate detail, and clear focus engages reader's interest through a variety of language choices and sentence structures	writes well-organized, richly developed compositions with ideas clearly expressed and supported by extensive detail provokes and sustains the reader's interest through effective and precise language, sentence structure, and vocabulary
Writing Conventions	writes compositions with partial control of standard English conventions of grammar, spelling, and punctuation	writes compositions with solid control of standard English conventions of grammar, spelling, and punctuation	writes compositions with sophisticated control of standard English conventions of grammar, spelling, and punctuation

Student work at the Failing level (200-219) does not meet the criteria of the Needs Improvement level.

Mathematics General Performance Level Definitions

	Needs Improvement 220-239 *On MCAS, a student at this level:*	**Proficient** 240-258 *On MCAS, a student at this level:*	**Advanced** 260-280 *On MCAS, a student at this level:*
Conceptual Understanding and Procedural Knowledge	demonstrates partial understanding of our numeration system performs some calculations and estimations identifies examples of basic math concepts reads and constructs graphs, tables, and charts	demonstrates solid understanding of our numeration system performs most calculations and estimations defines concepts and generates examples and counterexamples of concepts represents data and mathematical relationships in multiple forms (e.g., equations, graphs)	connects concepts from various areas of mathematics, and uses concepts to develop generalizations performs complex calculations and estimations selects the best representation for a given set of data and purpose
Problem Solving	applies learned procedures to solve routine problems	applies learned procedures and mathematical concepts to solve a variety of problems, including multi-step problems	generates unique strategies and procedures to solve non-routine problems
Mathematical Reasoning	applies some reasoning methods to solve problems	uses a variety of reasoning methods to solve problems explains steps and procedures	uses multiple reasoning methods to solve complex problems justifies strategies and solutions
Mathematical Communication	identifies and uses basic mathematical terms	uses various forms of representation (e.g., text, graphs, symbols) to illustrate steps to solution	uses various forms of representation (e.g., text, graphs, symbols) to justify solutions and solution strategies

Student work at the Failing level (200-219) does not meet the criteria of the Needs Improvement level.

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Science & Technology General Performance Level Definitions

	Needs Improvement 220-239 On MCAS, a student at this level:	Proficient 240-259 On MCAS, a student at this level:	Advanced 260-280 On MCAS, a student at this level:
Concepts	understands some basic concepts and principles and shows partial understanding of others	demonstrates solid understanding of many concepts, principles, and theories	demonstrates in-depth understanding of concepts, principles, and theories
Applications	offers partial solutions to problems involving scientific or technological ideas	applies scientific or technological knowledge to solve some problems	applies scientific or technological knowledge to solve complex problems
Communication	uses some basic scientific or technological terminology in limited explanations of phenomena	usually uses correct scientific or technological terminology in explanations of phenomena	uses correct scientific or technological terminology in detailed explanations of phenomena
Process	shows some understanding of and can perform some steps of an investigation or design process records data and identifies simple patterns	provides descriptions of workable designs or solutions for investigations makes reasonable interpretations and conclusions based on data	provides detailed descriptions of effective designs or solutions for investigations uses a variety of means to analyze data and draw defensible conclusions

Student work at the Failing level (200-219) does not meet the criteria of the Needs Improvement level.

History and Social Science General Performance Level Definitions

	Needs Improvement 220-239 On MCAS, a student at this level:	Proficient 240-259 On MCAS, a student at this level:	Advanced 260-280 On MCAS, a student at this level:
Knowledge *Facts and Skills*	demonstrates some understanding of basic factual knowledge shows partial understanding of the chronology of historical events uses limited history and social science terminology and skills	demonstrates a general command of factual knowledge shows understanding of the chronology of historical events and relationships among them uses history and social science terminology and skills	demonstrates a comprehensive understanding of factual knowledge shows comprehensive and in-depth understanding of the chronology of historical events and relationships among them uses sophisticated history and social science terminology and skills
Abstract Ideas *Concepts, Principles, and Theories*	demonstrates some understanding of simple concepts, principles, and theories	demonstrates solid understanding of simple concepts, principles, and theories, and some understanding of complex concepts, principles, and theories	demonstrates comprehensive and in-depth understanding of complex concepts, principles, and theories
Reasoning *Analyzing, Connecting, Interpreting, Applying, and Evaluating*	provides simple explanations of events or concepts with limited support makes simple and/or partial connections makes limited interpretations of evidence	provides clear and accurate explanations of events or concepts supported by evidence makes some abstract connections makes clear and logical interpretations of evidence substantiates some judgments using evidence	provides comprehensive and in-depth explanations of events or concepts supported by detailed evidence makes complex and subtle connections makes sophisticated interpretations of evidence makes well-substantiated judgments presenting convincing evidence

Student work at the Failing level (200-219) does not meet the criteria of the Needs Improvement level.

Appendix D

MCAS Committee Members, 1996-1999

ENGLISH LANGUAGE ARTS ASSESSMENT DEVELOPMENT COMMITTEE

Bill Amorosi	Belmonte Middle School, Saugus Public Schools
Sorel Berman	Brookline High School, Brookline Public Schools
Ann Connolly-Tolkoff	City on a Hill Charter School (Boston)
Anne Graham	Galvin Middle School, Wakefield Public Schools
Yvonne Gunzburger	Hemenway Elementary, Framingham Public Schools
Susan Horn	Adams-Cheshire Regional Public Schools
William Irvin	Pittsfield Public Schools
Shirley Kountze	Brooks/Hobbs Magnet School, Medford Public Schools
James McDermott	South High Community School, Worcester Public Schools
Laurie Palmer	Memorial School, Natick Public Schools
Lorraine Plasse	Springfield Public Schools
David Roach	Millbury Public Schools
Anne Steele	Shrewsbury High School, Shrewsbury Public Schools
Sandra Stotsky	Harvard Graduate School of Education/Boston University
George Viglirolo	Brookline High School, Brookline Public Schools
Robert Zeeb	Newton Public Schools

MATHEMATICS ASSESSMENT DEVELOPMENT COMMITTEE

Jim Alberque	Worcester State College
Brian Barnes	Mansfield High School, Mansfield Public Schools
Peg Bondorew	Northeastern University
Maureen Chapman-Fahey	Medford Public Schools
David Daniels	Longmeadow High School, Longmeadow Public Schools
William Day	Lawrence School, Falmouth Public Schools
Hal Dickert	Hopkinton Middle School, Hopkinton Public Schools
Paul Donovan	Blue Hills Regional Technical High School
Barbara Haig	Marion Zeh School, Northborough Public Schools
Marcia Harol	Andover High School, Andover Public Schools
Maggi Hartnett	Ayer Senior High School, Ayer Public Schools
Patricia Hills	Holyoke Public Schools
Carol Hynes	Leominster High School, Leominster Public Schools
Joan Kenney	Harvard Graduate School of Education
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Michele Kingsland-Smith	Ahern Middle School, Foxborough Public Schools
Raynold Lewis	Worcester Technical Institute
Gloria Moran	M.G. Williams Junior High, Bridgewater-Raynham School District
Donna Pappalardo	Parker Middle School, Reading Public Schools
Christine Redford	Joshua Eaton Elementary, Reading Public Schools

Guy Roy	Plymouth Public Schools
Bernard Ryder	Agawam Public Schools (Retired)
Donna Scanlon	Holyoke Public Schools
Margaret Skowron	Highland Elementary School, Brimfield Public Schools
Nancy Sprague	Bridgewater State College
Kathy VanCamp	Brimfield Elementary School, Brimfield Public Schools
Nancy Zamarro	Worcester Vocational High School, Worcester Public Schools
Giselle Zangari	Boston University Academy

SCIENCE & TECHNOLOGY ASSESSMENT DEVELOPMENT COMMITTEE

Althea Brown	Medford High School, Medford Public Schools
Kathleen Brown	Hudson Public Schools
Paul Cavanagh	North Attleborough High School, North Attleborough Public Schools
Mary Corcoran	Massachusetts Association of Science Supervisors
Charles Corley	McCall Middle School, Winchester Public Schools
Mary Creed	Fall River Public Schools
Joyce Croce	Tyngsborough Public Schools
Howard Dimmick	Stoneham Public Schools
Susan Ferguson-Ellis	Oxford Middle School, Oxford Public Schools
John Fusco	Winchester High School, Winchester Public Schools
Bradford George	Hale Middle School, Stowe Public Schools
Ilis Gonzalez Alonso	Cambridge Public Schools
Diane Goodman	Alfred Zanetti School, Springfield Public Schools
James Hamos	University of Massachusetts Medical Center
Michael Lewandowski	Joseph Case High School, Swansea Public Schools
Michael Lynch	Andover High School, Andover Public Schools
Patrick Markham	Pittsfield Public Schools
Maureen Moir	Bridgewater State College
Louise Mary Nolan	Woburn Public Schools
Maxine Rosenberg	Newton Public Schools
Robert Sartwell	Agawam Public Schools
Peter Shaughnessy	Northampton High School, Northampton Public Schools
Pamela Tickle	FallRiver Public Schools
Maria Torres	Fitchburg Public Schools
Mike Zapantis	Pittsfield Public Schools

HISTORY AND SOCIAL SCIENCE ASSESSMENT DEVELOPMENT COMMITTEE

June Coutu	King Philip Regional High School, King Philip Regional School District
Daniel Dodson	Marsh Grammar School, Methuen Public Schools
Jim Dudley	Brookline High School, Brookline Public Schools
Alan Fraker	Boston University School of Education
Susan Goldsmith	Boston University School of Education
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Joyce Malcolm	Bentley College
Beverly Nelson	Medford Public Schools

Marie Norris	McKay School, Beverly Public Schools
Sheldon Stern	JFK Library and Museum
Susan Szachowicz	Brockton High School, Brockton Public Schools
Fred Wetzel	The College Board
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STATEWIDE ASSESSMENT ADVISORY COMMITTEE

James Argir	Massachusetts Elementary School Principals Association
Guessippina Bonner	Massachusetts Teachers Association
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Dennis Richards	Reading Public Schools
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Kathryn L. Riley	Consultant on Bilingual Education
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Katherine Levine	East Bridgewater Public Schools
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Tom Miller	Perkins School for the Blind
Lorna Nickerson Kaufman	Kaufman Associates
Suzanne Recane	Learning Center for Deaf Children
David Riley	Massachusetts Urban Project
Richard Robison	Federation for Children
Tim Sindelar	Disability Law Center
Joanne Testaverdi	Northeast Regional Vocational School

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Kriner Cash	Vineyard Haven Public Schools
Kerry Cavallaro	Norfolk County Regional Vocational High School
John Cawthorne	School of Education, Boston College
Veronica Griffin	Worcester Public Schools
Sumru Erkur	Stone Center, Wellesley College
Carol House	Cambridge Rindge and Latin School, Cambridge Public Schools
Deidre Loughlin	Worcester Public Schools
Paula Martin	Needham Public Schools
Fern Marx	Stone Center, Wellesley College
Margarita Poles	Parent, Boston Public Schools
Lionel Reinford	Worcester Public Schools
Wanda S. Franklin	Needham Public Schools
Meg Wilder Watson	Boston Public Schools

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George Madaus	Center for the Study of Testing, Evaluation and Educational Policy, Boston College
Barbara Plake	University of Nebraska
Doug Rindone	Connecticut Department of Education
Roger Trent	Ohio Department of Education

Appendix E

MCAS-Related References

MASSACHUSETTS *CURRICULUM FRAMEWORKS*

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Massachusetts Department of Education, *Guide to the Massachusetts Comprehensive Assessment System: English Language Arts* (Malden: 1998).

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Massachusetts Department of Education, *Guide to the Massachusetts Comprehensive Assessment System: History and Social Science* (Malden: 1999).

OTHER MCAS DOCUMENTS

Massachusetts Department of Education, *The Massachusetts Comprehensive Assessment System: Requirements for the Participation of Students with Disabilities (A Guide for Educators and Parents)* (Malden: 1999).

Massachusetts Department of Education, *The Massachusetts Comprehensive Assessment System: Release of Spring 1999 Common Items* (Malden: 1999).

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